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ALASKA Medicine

Volume 11, Number 1

March 1969



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ALASKA MEDICINE



Official Journal of the Alaska State Medical Association
Official Journal of the Alaska Dental Society

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George Aden Ahgupuk of Anchorage is well known
for his pen and ink drawings on animal skin. Born in
1911 in Shushmaref, Alaska, Mr. Ahgupuk completed the
fourth grade before joining the Eskimo men in subsistence
hunting and fishing. An injury to his leg was followed by
a prolonged period of hospitalization in 1934. During this
time his drawings attracted much attention. Encouraged
to continue his drawings, and short of paper, Mr.
Ahgupuk developed his secret process for preparation of
animal skins which leaves a creamy white sheet as a base
for the ink drawing.
Since 1937 when his work was featured in Time
magazine, Mr. Ahgupuk has become well known. In 1948
he and his wife Kara Allockeol and their four children
moved to Nome from Shushmaref, then in 1951 they
came to Anchorage where he is a prominent and
respected member of the art community. He presently
resides at 817 W. 20th Street, Anchorage, Alaska.
Alaska Medicine is proud to have his permission to
reproduce some of his works in forthcoming issues.

WILLIAM O. MADDOCK, M.D.



1923-1969

Although the youngest, he was considered the most capable member of his class.

During the years at Portland, he married Alice, his life-long companion. They moved to Detroit in 1949, where he interned at the Detroit Receiving Hospital and then accepted a fellowship in Internal Medicine until 1952. He was also an Instructor at Wayne University School of Medicine, where he continued his research.

From October, 1954 until October, 1956, he served with the Army in Korea and in Japan and then returned to Detroit. He was appointed Associate Professor of Medicine at Wayne in 1956, and became a member of the American Board of Internal Medicine in 1957. He was also a member of the American Society for Clinical Investigation, the American Federation for Clinical Research, the American Physiological Society, the Endocrine Society, the Society for Experimental Biology and Medicine, and the Central Society for Clinical Research. In his field, he was broadly recognized.

In 1958, tired of organized medicine, he came to Alaska and started private practice in Anchorage. He served a term as Chief of Staff of Providence Hospital, the first editor of *Alaska Medicine*, and Director of The Doctors' Clinic in Anchorage.

Bill Maddock was ever anxious for the happiness and welfare of mankind. He missed no opportunity to encourage his patients and colleagues. He died suddenly following an accident on January 5. He is survived by his parents, two brothers, and a sister. Alice and four children are in Anchorage and his oldest son has started premedicine in Oregon. It has been a privilege to have been among his friends.

William O. Maddock was born in Tacoma, Washington, on November 25, 1923. He completed high school in Seattle and finished his premedical requirements, with honors, at the University of Washington. During these three years, he filled his leisure time as an orderly at King County Hospital.

Entering the University of Oregon School of Medicine in 1943, he soon began research in Endocrinology. This field remained his greatest academic interest. He graduated at the head of his class and received his Master of Science degree in June, 1947, and his Ph.D. and M.D. in 1948.

LETTERS TO THE EDITOR

RESPONSE TO THE DECEMBER 1968 ISSUE OF "ALASKA MEDICINE"

The December 1968 issue of "Alaska Medicine" contained six articles which were devoted either entirely or in part, to a critique of the role of the Alaska Area Native Health Service of the United States Public Health Service.

The theme of the issue, summarized more or less in the Editorial, was that the Alaska Area Native Health Service should begin to phase out its role in providing comprehensive health services to the Alaska Native people. The Public Health Service was exhorted to end its practices of segregation, that is, providing care for Alaska Native people only. Some of the programs, namely, the dental, otology and the contract health services programs, were severely criticized.

The Alaska Area Native Health Service would like to offer this brief orientation to its mission and *modus operandi*.

In July 1955, the United States Public Health Service was given the responsibility of providing comprehensive health services to American Indians and Alaska Natives by an Act of Congress and the Indian Health Service was organized to carry out the charge. Its subdivision, the Alaska Area Native Health Service, has this responsibility in Alaska. Its goal is "to elevate the health status of the Alaska Native to the highest possible level".

During the first several years of operation the Alaska Area Native Health Service placed considerable effort on development of capabilities to attack the tremendous problems in morbidity through curative services. Tuberculosis, pneumonia, enteric diseases, otitis media, dental diseases and untreated diseases responsive to surgery were overwhelming problems needing immediate attention. The problems have not disappeared, but considerable gains have been made as shown by declining morbidity and mortality statistics and decreased hospital census and length of stays.

As Alaskans know, most of the Native population continues to live out in the remote areas where they are served by six Alaska Area Native Health Service Hospital facilities and staff living in these remote areas. Referral centers, operated by the Alaska Area Native Health Service at Anchorage and Mt. Edgecumbe, were

developed to care for patients requiring specialty services not available in the field hospitals. This approach was necessary since the remote communities did not have the private facilities or health manpower required to fill the needs. The Public Health Service also staffs a number of health centers in the State, some associated with community hospitals.

Along with curative services, preventive services were developed. As the pressure for curative services has diminished, greater effort and emphasis have been placed on preventive services. The thrust has been to extend preventive services out to the village levels. Visits by health teams to villages have increased as manpower has become more available. There are approximately one hundred sixty Alaska villages. Currently, we are scheduling visits to each village by health teams at least twice a year. The health team basically consists of a physician and a public health nurse. In addition, villages are visited periodically by dentists, sanitarians, nutritionists, ophthalmologists and social workers.

A newly strengthened effort is the "Alaska Community Health Aide Program". The objective of this program is to have at least one well trained Health Aide located in each village to provide both curative and preventive services, under the supervision of health professionals. The Alaska Area Native Health Service has a four-phase training program to provide suitable preparation. The Aides are paid under contract with our organization.

Also included in the scope of the Alaska Area Native Health Service is sanitation facilities development and construction. Through Public Law 86-121, the Public Health Service is authorized and funded to assist the Native communities in developing water supply and waste disposal facilities. This program constitutes another extremely important preventive measure which is essential in reducing morbidity from intestinal and other infectious diseases.

The prevention and treatment of dental diseases is another large responsibility. The Alaska Natives have the most severe dental disease in the entire Indian Health Service. The main effort here is the prevention of disease in school children, and the development of a sound maintenance program. The problem is so massive that it will only respond to a well organized, consistent approach.

The problem with the highest prevalence is otitis media. A four-pronged approach is being employed to attack the problem. Despite the seriousness and the great extent of the disease, much is not known about its cause and prevention. The Arctic Health Research Laboratory in conjunction with the Alaska Area Native Health Service is conducting research to develop sound methods of prevention and treatment.

Secondary prevention is accomplished through intensive early medical treatment, tonsillectomy and adnoidectomy as indicated, and rehabilitation through reconstructive ear surgery and special education. An otologist and pediatrician head up the team devoted to this problem. Besides our Chief Otologist, based at the Medical Center, two Air Force otologists assist him in the Anchorage Area. Another portion of the otology program is operated at Mt. Edgecumbe, under sponsorship of the New York Eye and Ear Infirmary. An additional team is contemplated to work out of one of our field hospitals later this year.

Another problem of great significance is mental health. Our mental health program is headed up by a psychiatrist, and backed by a psychologist and social worker. This team works very closely with the State and local communities. Its success can be partially measured in the marked drop in hospitalizations for mental illnesses.

Our Contract Health Services Program is another major component of our program. Under it, health services which cannot be provided directly by the Alaska Area Native Health Service are rendered through contract with private physicians, hospitals, laboratories and with the State. The Public Health Nursing services to Alaska Natives are provided under contract with the State of Alaska.

Other service programs are Maternal and Child Health, Health Education, Social Services and Rehabilitation. Many of these are rendered in conjunction with the State of Alaska, Department of Health and Welfare. I mentioned briefly only some of the major programs in order to give the reader a better picture of the scope of work that the Alaska Area Native Health Service is involved in. Although considerable headway has been made, the problems of health care in Alaska are still massive. Isolation factors, climate, geography and slowness of social and economic development will continue to be factors hampering the

achievement of our goal which is to elevate the health status of the Alaska Native to the highest possible level.

The above programs and many others will require further detailing in order for the Alaska Health professions to have an accurate picture of the Public Health Service role and operations in Alaska. We hope to spell out these programs in subsequent issues of "Alaska Medicine". I believe some specific criticisms made of our services and operating policies in the December 1968 issue, can best be answered by full descriptions of the programs alluded to.

The theme of segregation ran through almost all of the articles in the magazine. The Association President, as well as the Editor made this point strongly. As a result of Public Law 83-568, dated August 4, 1954, the Division of Indian Health (now Indian Health Service) was established in order that the severe health problems suffered by the Indians and Alaska Natives that years of neglect engendered, might be given proper attention. At the present time, a conservative estimate places the health status of this group a full generation behind the general population. It appeared logical to the American People, through their congressional delegates, that attention should be focused on this group. The American citizen can bring about change through legislative action, if he so desires. Before recommending such a move, however, it is incumbent upon him to hear the voice of the Native person, and take a careful look at alternatives. The ultimate objective should be to improve the health level, and not simply to break down the barriers of "segregation".

Alaska Area Native Health Service hospitals are available to non-Native people in the remote areas where there are no private facilities available. So it is not running an exclusively "segregated" service. Furthermore, the Indian Health Service has proposed to the Department of Health, Education and Welfare, that in remote areas, private physicians have the privilege of becoming hospital staff members to treat their own private patients. The Department concurred with the Service and has submitted proposed legislation to that effect to the U.S. Congress.

It has been the express aim of the Alaska Area Native Health Service to promote the provision of care in the person's home community, which requires contracting for private care in many urban communities. We have been doing this to the extent our budget will

allow. Our contract care costs in Fairbanks alone for example have increased from \$132,200 last year to \$235,500 this year, comparing the first seven months of the fiscal year. These costs are almost entirely for curative services, and not for preventive or rehabilitative services.

The health industry is one of the largest and most dynamic industries in the United States today. Medicare, Medicaid, enlightened living, and an economic status unknown before in history, have created tremendous and unprecedented demands on those engaged in providing health services.

Alaska itself is a dynamic State. The health field should also be dynamic. The status of health of the Alaska Natives has been a rapidly changing one. The Alaska Area Native Health Service continuously tries to adjust our programs to fit the changing needs. We are a proponent and participant of the comprehensive health planning.

The Alaska State Medical Association has clearly expressed its desire to see a new system for the delivery of health services to the Native people. It has concluded that the Alaska Area Native Health Service needs to change its role and mission. This is a healthy and encouraging sign — it clearly indicates a desire for progress.

The Alaska Area Native Health Service welcomes any advice and assistance which would enable a more rapid rate of elevation of the health status of the Alaska Native people to the optimum level. Inasmuch as the Alaska State Medical Association has indicated that the present system is not adequate, I would like to ask the Association to contribute in concert with the Native people, the State of Alaska Department of Health and Welfare, and the Alaska Area Native Health Service, to a total plan for Native health care, within the framework of the State Comprehensive Plan, to include:

1. Specific identification of services to be provided, including therapeutic, preventive and rehabilitative services.
2. Identification of administrative procedures, mechanisms and structures to carry out the plan and program.
3. A comparative cost analysis for both direct and indirect services.
4. Identification of all resources which the alternative systems would require.
5. Provision of services available in quantity and quality to exceed the present level supplied.

A basic philosophy of the Alaska Area Native Health Service is that the Native should

have a full voice in the health services designed to meet his needs. This philosophy is stated in the Indian Health Service annual report "To the First Americans", dated June 1968:

"... the Indian Health program is your program. It is to be carried out with your wishes and your requirements. The Division of Indian Health (Indian Health Service) is the instrument for providing services which are planned, conducted and evaluated in cooperation with you as individuals and as organized tribal and community groups. As in an industrial corporation, you are the shareholders, entitled to full knowledge of the operations, and full voice in their conduct."

The Alaska Area Native Health Service pledges every effort to participate and cooperate in mutually developed plans for the continuous improvement of health services to the Alaska Native people.

Sincerely yours,

JOHN F. LEE, M.D.
Director, Alaska Area
Native Health Service

Dear Sir,

As always I enjoyed reading the last issue of *Alaska Medicine*. The articles and editorial pertaining to the USPHS were of particular interest to me. Having just completed a little over two years with the Public Health Service in Bethel, I can't resist the temptation to chip in another two cents worth.

Perusing the magazine one couldn't help but notice the tremendous spectrum that existed. The flavor of articles ranged from the scholarly and the critical to the pompous and self-inflating. Genuine concern was voiced on many areas. Sharp and pertinent criticisms were made but ever so lightly salted throughout the magazine could be heard cries of "Ouch! My pocketbook!" and "Damn the monster!". The USPHS is certainly deserving of some criticisms. However, I can't help but feel that it becomes somewhat of a whipping boy for many of the problems existing throughout the state. Problems which are inherent in Alaska, with its varieties of people, socio-economic levels, climatic areas and horrendous transportation and communication

difficulties. Problems which are further compounded by Alaska's rapid but very unequal growth and expansion rate. What the PHS represents in Southeastern, Anchorage or Fairbanks is vastly different from the PHS at Bethel, Kotzebue or Barrow.

After two years in the bush I have come away from my public health service with very mixed feelings. I deem it a real honor and a privilege to have served with the public health service and have the highest regard and respect for the goals and ideals that the USPHS has. Some of the finest clinicians and physicians I have ever been privileged to work with have been and are members of the USPHS staff. As a general practitioner in the bush, I received nothing but the finest support, help and encouragement from PHS specialists and consultants, men whose vast knowledge and experience in the problems of "bush medicine" are unsurpassed.

However, I came away from my public health service experience with some real feeling of frustration and dissatisfaction. I tend to look on the public health service as two separate entities, one administrative and the other operational. As I just mentioned, I have nothing but the highest regard for the operational aspects of the public health service. The administrative, or bureaucratic, end of things is indeed a horse of a different color.

The USPHS administrative system is based on a bureaucracy whose major concern is self-protection and maintenance of the status quo. It is a system where the enemy is not E.-Coli or otitis media but advancement, ratings and job insecurity. It seems to me a system not of people, but of forms, rules and manuals, rigid almost beyond belief. It is a system that unfortunately fosters mediocrity and stagnation. Job advancement and job security is measured not in terms of creativity and innovation but in terms of forms, reports and procedures. The methodology becomes overwhelmingly important, sometimes to the point where the method is far more important than the result.

There are many fine and dedicated people in the administrative parts of the public health service but unfortunately there are many whose major concern has little to do with the health problems that exist throughout the state. Time and time again, I have heard authoritative comments and judgments passed on the problems that exist, for instance, in the Bethel area by

people who have never been to Bethel or any other bush area, whose knowledge of the area consist of second or third hand reports, or perhaps was gleaned from a two day field trip three years ago, during which time they accrued their vast knowledge of the tundra from a half hour walk from the hospital to the Bethel NC store, allowing them an unexcelled view of the Eskimo and his culture.

Most, if not all, of the major policy decisions of the USPHS are made by the administrative and not the operational personnel and unfortunately, some of the people responsible for making these decisions are persons, as above, who have little real comprehension and understanding, not only of the health problems of the area for which they are responsible, but they have almost no understanding and comprehension of the problems of private medicine. As a result, many of the decisions are shortsighted, fatuous and impractical, sometimes almost beyond belief. I can't resist the temptation to cite examples. The construction of a new hospital at Tanana and the maintenance of a large hospital at Mt. Edgecumbe being the most obvious.

This summer the public health service completed with great pride a clinic building at the village of Alakanuk, a village of about 450 people on the middle mouth of the Yukon. Over the past few years the Yukon River has slowly been encroaching on the village and the villagers have been moving upstream. However, in spite of this slow encroachment of the river, a half million dollar edifice was erected to serve as the housing and clinic building for visiting public health service physicians, which means it would probably be used for two, or at the most, four weeks out of the year. If state public health nurses use it, the use might go up as much as two months out of the year. The rest of the time, the building stands idle and empty (except for maintenance men trying to repair frozen pipes). I merely wonder to myself how many years it will be until this clinic floats slowly down the river and a new one is constructed. The service unit director at the Bethel Hospital and the administrator of the Bethel Hospital strongly objected to the placement of this building. They suggested instead, that the money be used, not to build one permanent fixed building, but to purchase ten or twenty trailers which could be delivered to building sites at a tenth the cost of a permanent structure, giving, not one village, but ten to fifteen villages, clinics; facilities which would be movable when a need arose.

Plans are currently being made to build a clinic building at the village of Kwigillingok, a small Kuskokwim village of about 80 people. Two years ago it was a village of 300; last year a village of 200; next year, who knows? Maybe 3 or 4. Kwigillingok sits at the mouth of the Kuskokwim and each spring the high tides flood the village. The villagers are moving to a new site and over half of the village has already left. Despite this, as of last summer, plans were still being made to put a clinic at the old village site. As it sinks slowly into the Bering Sea mud, it should make a wonderful perch for walrus.

I don't mean to imply that the public health service should be driven from the state with its tail between its legs. It will be a long time to come before areas like Bethel will support private medicine to any degree at all and it will be a longer time before private medicine can provide the care and services the public health service can. The tremendous contribution that the public health service has made to the State of Alaska is well documented and certainly doesn't need to be repeated here.

One cannot be around public health service institutions for long without picking up a very definite and unfortunate missionary flavor. There is a strong feeling among PHS personnel that they alone are responsible for the care of the Alaska native and that they alone really care for the Alaska native. This unfortunate attitude is sometimes understandable when one reads in *Alaska Medicine* or in the popular press, statements by Alaska physicians which are grossly self-serving and show almost no understanding or appreciation of the problems and complexities that exist in trying to bring health care to remote and isolated areas in Alaska.

The public health service will be around Alaska for a long time and hopefully so will private medicine. With the advent of Title 19 and comprehensive health planning, there is no better time than the immediate present to be in a realistic and earnest dialogue with the public health service. At the present time, there is certainly a need and a place for both private and public medicine in the state. From an idealistic point of view, the goals are identical: to provide efficient, effective health care to all of the people in Alaska. There can be no one set rule, no one set regulation or no one set policy which will work throughout the whole state. Each area and community demands its own particular solution, and the only way a truly adequate solution can

be arrived at is by sitting down and understanding each others' problems. It is easy to flail the public health service as a bumbling, bureaucratic monster, bent on building a medical empire in Alaska. By the same token, public health service people frequently, and unfortunately sometimes justifiably, think of the private physician as a pocketbook oriented businessman. Fortunately, both the public health service and the state medical community are for the most part made up of sincere and dedicated people who see a real need and have an earnest desire to correct the need, the main difference being, the how and the wherefore. As private physicians, we would perhaps be wise to develop some concrete and specific proposals and alternatives to USPHS plans in Alaska. Criticism, however much justified, is not worth very much unless there are some better alternatives that can be presented.

Yours,

Paul L. Eneboe, M.D.
Homer, Alaska

Dear Sir,

While reading your December issue of "Alaska Medicine" I noted several articles concerning the Natives of Alaska and if I may, I would like to pass on to you a few of my reactions pertaining to some of the ideas expressed.

It has been said (I don't know by whom) that in some respects the U.S. Government has developed a national "guilt complex" as a result of their role with the Indians of the United States because of some of their policies during the past almost 200 years. In some respects perhaps it would appear this "guilt complex" has resulted in overcompensating in certain areas such as the formation of governmental agencies which in effect provide services for specific racial groups.

I agree with your statement in your editorial that race shouldn't be the basis of separate medical facilities or determine eligibility of services; however, with the present financial ability of many of the Natives they are not able to pay their medical expenses. As you know, some Natives do pay all their medical expenses and some who are able do not. The question

might be asked why aren't these people financially able to pay. They obviously don't have the economic wherewithal as a result of a lack of education in a society in which they are ill equipped to compete. This lack of education in most cases is due to a lack of even the opportunity for an education. This is unfortunately today still the case with many Native youth of Alaska. A fair percentage of them still do not have a high school to attend if they are fortunate enough to have graduated from the 8th grade. May I ask your Association to assist at the Federal and State legislative levels to work for and fund the establishment of such things as Regional High Schools and other vocational educational facilities which are now lacking or are non-existent? It is my belief that by so doing you would be combating one of the real causes of much of what you speak of in your editorial. Contrary to your statement in the 2nd to the last paragraph of your editorial, it is my opinion that the vast majority of the Native people do desire and recognize the significance and importance of an adequate education.

Several of the articles mention the need to decrease the function of the U.S.P.H.S. in Alaska and increase the contract medical care through private services. I certainly agree with this in principle but am not sympathetic with the viewpoint that the P.H.S. facilities be removed (particularly in some of the villages) until there is adequate assurance that alternative services will indeed be furnished through private physicians.

I wonder and suspect that if the private sector of medicine were to present definite plans to the P.H.S. of concrete plans for the establishment of private medicine in such places as Tanana and Kotzebue they would revise and reinspect any expansion of P.H.S. facilities. In the meantime the population and need increases and in planning for these needs the present facilities need renovating or expansion.

Thank you for allowing me to express a couple of my thoughts. I look forward with interest to further developments and improvement in this area as the opportunity for and level of education of these people is elevated.

Sincerely your,

GERALD H. IVEY, President
Fairbanks Native Association

Dear Sir,

The last issue of your journal, December 1968, dealt on the subject of medical care for the native people of Alaska in several articles; however, I would like to allude to the following paragraph in your editorial:

"In the meantime, construction of new USPHS facilities, and the persistence of established USPHS patterns of health care in the face of adequate alternate medical facilities (often developed despite USPHS competition and 'patient drain') is an extravagance we can ill afford."

First of all, because of social and economic conditions, low income and low educational level, the native people are still not ready to utilize the care available through private services. Secondly, I believe that you were hasty in assuming that the USPHS is in competition with the private sector in attracting patients. My thinking is that through improved economic conditions and better educational programs, the private practitioner will automatically attract more native patients without fighting the USPHS. I am certain that this is the long range intention of the USPHS.

Thirdly, it is my personal thinking that until such time that the native people enjoy the same life expectancy as the non-native people in Alaska, the USPHS has a big responsibility in as far as these people are concerned.

Sincerely

Flore Lekanof
President

THE ALEUT LEAGUE



We contend that local office and hospital medical care can be provided to beneficiaries by the private medical community in towns such as Kodiak or Fairbanks, at the same or greater level of competence and at reduced cost. We believe that private medical care is basically more efficient by reason of the reduced administrative activity and by the tailoring of hospital admissions and therapy to an individual patient's

schedule and needs. We certainly cannot practice medicine in areas such as Bethel and make a living at it at present, but see no reason why the USPHS cannot contribute the same or even less money to support competent private care of the "beneficiary" on a contract basis where such services are available.

One might consider the difficulty Kodiak has had in getting and keeping a qualified surgeon, with only the non-native population as patients. Yet it is nice to have a surgeon available to all in case of emergency, as at present. By lumping the Native with the rest of the population in areas where there is a significant white population, better care for all should result. Obviously, until such time as the Native can afford to pay for his own care, USPHS or other Federal funding will be required.

No one in private practice has seriously attacked the USPHS presence in the bush at present, as we can currently provide no reasonable alternative. We are much more interested in establishing a dialogue and cooperating as equals, so that we can all contribute to the total health picture without the artificial administrative and fiscal restrictions which so often interfere without purpose or benefit to the patient. Ed.

COMPREHENSIVE HEALTH PLANNING

COMPREHENSIVE HEALTH PLANNING — Comprehensive health planning is the law of the land (Public Law 89-749). The Comprehensive Health Planning agency in Alaska is the Department of Health and Welfare. The Agency Director is Mr. Lloyd Morley. Planning is subject to approval of the C.H.P. Advisory Council, a group of 26 members, 51% of whom are individuals not already directly involved in health activities. This Council was appointed by the former Governor Hickel. Commissioner Scott McDonald is Chairman of the Council. It may prove awkward, though it is not illegal, for the Chairman of the Council to supervise as Commissioner of Health and Welfare the very agency whose plans the Council must approve or disapprove.

The Alaska State Medical Association wishes to support and assist the Comprehensive Health Planning Council. To this end it has prepared a policy statement and has adopted a resolution (attached).

Two years ago President Johnson signed Public Law 89-749: "Comprehensive Health Planning and Public Health Services Amendments of 1966". These Amendments give states and local bodies new opportunity to plan health care. If the chance is not seized — seized to devise what is best on a State-wide basis for Alaska, planning will inevitably be done for us in Washington or San Francisco, where plans appropriate for Georgia or California or some place will be forced upon us — just as Title XIX, which is not exactly appropriate for Alaska, will be the best we can have.

Planning on a State level will be done by a special office of the Alaska Department of Health. The Comprehensive Health Planning Advisory Committee will assist and approve planning.

But more is needed than these agencies, for planning must go far beyond traditional programs of state health services such as in vital statistics, communicable diseases, mental health, maternal and child health and environmental health. Planning must include long range schemes for adequately meeting all of the health needs, in-patient and out-patient, of all of the peoples of Alaska, for in the words of the law the national goal is "the highest level of health attainable for every person". This is a challenging and formidable goal.

Its achievement will be difficult not only because of the high

RESOLUTIONS Passed by ALASKA STATE MEDICAL ASSOCIATION January 4, 1969

WHEREAS, the Council of the Alaska State Medical Association has taken note of the stated intent of the Alaska Native Health Service to build a new hospital in Tanana,

WHEREAS, Tanana is an isolated location with very limited professional medical personnel,

WHEREAS, the people of Fairbanks plan to build a new hospital which will have on the staff many professional medical personnel in several different specialty fields,

THEREFORE BE IT RESOLVED, that the Alaska State Medical Association recommend that the United States Public Health Service reconsider its decision and obtain approval of the Comprehensive Health Advisory Council for Alaska, before proceeding in its plans for a new hospital in Tanana.

WHEREAS, the Council of the Alaska State Medical Association has taken note of the stated intent of the Alaska Native Health Service to build a new hospital in Anchorage replacing the present hospital,

WHEREAS, this would perpetuate an unnecessary duplication of services now available in Anchorage or would involve an expensive provision of medical care that could much more efficiently and economically be provided by some expansion of the other hospitals in Anchorage,

THEREFORE BE IT RESOLVED, that the Alaska State Medical Association recommend that the United States Public Health Service reconsider its decision and obtain approval of the Comprehensive Health Advisory Council for Alaska, before proceeding in its plans for a new hospital in Anchorage.

Introduced by
Stanley Jones, M.D.

Since the State of Alaska, the United States Public Health Service, and the Alaska State Medical Association all recognize the authority of the Comprehensive Health Planning Council for health planning,

BE IT RESOLVED that the Alaska State Medical Association request the Comprehensive Health Planning Council to commission representatives of these three (3) groups to meet together as a Standing Committee to help develop long range plans to meet all the health needs of the State.

cost of providing everyone with optimum care, but even more difficult because it will be hard to find physicians, dentists, nurses, therapist, sanitarians and technicians enough to provide the ever broadening areas of preventive and corrective health care demanded today. Because of this, waste in the use of medical personnel not to mention money, cannot be afforded.

Overlapping or dual systems of medicine cannot be allowed. Parenthetically, a system of medicine based on racial segregation also must not be allowed to survive for long as such, for segregation is nationally distasteful now and is locally distasteful, at least to educators, as witness the recent Sitka decision for regional non-segregated high schools.

It is the desire and recommendation of the Legislative Committee that the Alaska State Medical Association offer its advice to the Alaska Planning Agency and to the State and Local Comprehensive Health Planning Advisory Councils or committees on all matters relating to health planning general or specific. We request to be invited as an official Committee or otherwise to meetings of the Comprehensive Health Planning Advisory Council to assist in these matters. We will inform all Council members or Chairman of Committees of our posture on health matters, emphasizing the need for long range planning before implementation of unimportant and expensive specific programs.

But more than this, we wish to engage the Department of Health and the U.S.P.H.S. in a systematic dialogue (or triologue, if you will) concerning the long range medical needs of all Alaskans to the end that a unified, unsegregated, efficient system of patient care can be presented to the Planning Council. We invite the Commissioner of Health and the Director of U.S.P.H.S. in Alaska to begin these discussions with us. Our own thinking is rudimentary about these matters. We need more information than we have, but must agree consequently on what must be done, simply because there will not be enough doctors or dollars to go around if we are wasteful. With proper lead time, hospital planning and planning for modern communications and transportation, doctor distribution and the like can all be appropriately scheduled. It will be difficult for both the private sector of medicine and the public sector to alter present plans and practices, but after them we must if all are to meet the exciting challenges of P.L. 89-749.

AMA CLINICAL CONVENTION, MIAMI BEACH, FLORIDA, DECEMBER 1 THROUGH 4, 1968

Delegate's Report by Joseph M. Ribar, M.D.

The 22nd Clinical Convention of the AMA began promptly and properly at 2 p.m. on Sunday, December 1st with the invocation by the Rev. Paul B. McCleave. The meeting was held in the Grand Ballroom of the Americana Hotel, an imposing structure, with impressive prices, providing mediocre services. The elegant pool and nearby cabanas were a part of the luxurious surroundings that were little used by the members of the House of Delegates. The House of Delegates generally has a very full schedule from the time it convenes on Sunday afternoon till adjournment on Wednesday.

The evening activities can be very entertaining and if you've never experienced the hospitality that is extended to attending and visiting physicians and their wives, by the various state societies (generally lobbying for favorite sons to be elected to key positions in the AMA), you've missed one of the better things of life. It's the sociability of fellow physicians I'm referring to.

The delegates and alternate delegates are serious about their responsibilities to the state societies that have sent them to attend this convention. There is a lot of business to be considered and not too much time for frivolity.

I have been especially fortunate the past two meetings in having Dr. Jim Lundquist, our State President, present at both meetings. In fact, Dr. Paul Isaak was also present at this meeting. That makes 3 times in the 16 meetings I've attended, as your delegate, that Alaska has been represented by more than one physician!

To get back to the business of the House of Delegates, the invocation was followed by remarks from the Speaker of the House, Dr. Walter Bornemeier. He noted that the business of the House after July, 1969 will be conducted under a new set of rules and regulations, either a new revision of Roberts Rules of Order, Revised by Rachel Vixam (March 1969) or Sturgis Standard Code of Parliamentary Procedure. Dr. Bornemeier suggested that delegates or

component societies of the AMA, who are interested in the way the business of the House is conducted, study both copies so an intelligent decision can be made at the coming Annual Meeting. He also expressed great interest in the use of a portable electronic opinion taker or vote-taking machine, which could register votes of the House on a tally board in a matter of seconds. This would greatly expedite the business of the House on any matters where a vote is called for (and there are many even in our short meetings). This could be rented at a basic charge of \$350.00. I thought it a fine, progressive idea. However, the Reference Committee, to which this was referred "foresaw a number of practical problems", and recommended that the Speaker "continue his investigations". (Doctors being scientists do a lot of investigating.) Its use will probably be adopted in two or three years.

The address of the President, Dwight L. Wilbur, followed. Dr. Wilbur pointed out that Americans are impatient and aggressive. We have achieved so much, so rapidly, that now the people have become impatient with the realities of human limitation. As a natural result of our sweeping success in so many technological fields we also demand perfection in medicine. Dr. Wilbur emphasized that it is up to we physicians on the local level to educate the public to the limitations of medicine. Thereby, educating the public to a more reasonable and realistic attitude toward medicine. He stressed unification of the medical profession and maintaining effective liaison with other groups in our communities interested in health care, social welfare, educational and governmental problems. It is the job of practicing physicians to put a rein on cost of medical care by avoiding unnecessary or prolonged hospitalization. We as the patients' doctor can also encourage and stimulate prepayment mechanisms on a voluntary basis, support the principle of income tax credits for health insurance, keep our charges on a usual, customary and reasonable basis, and encourage

the use of reliable automated laboratory procedures.

In closing, the president noted that we are in an epoch of rapid change.

If we are to further the best interests of our patients.

If we are to continue to provide the best medical care in the world.

If we wish to maintain the admiration and esteem of our patients. We must be ready to change, to participate, to actively plan the course of medicine of the future or be swept away with the tide.

Following Dr. Wilbur's speech and some brief remarks by the President of the Woman's Auxiliary, Mrs. C. C. Long, the House settled down to its business. In all, 94 items of business were considered. These items included reports from the Board of Trustees, the Councils of the AMA and 62 resolutions submitted by state medical associations and individual delegates.

The most important piece of business for our Alaska physicians was the action on Resolution 6, which was submitted by the Alaska State Medical Association. This resolution urged the AMA to establish a professional liability insurance program for its members.

I might point out that this is not a new problem nor is it a problem unique to the doctors of Alaska. Resolutions were presented to the House of Delegates concerning this problem as early as 1953, by 5 different states. These were rejected as not being a feasible solution. Further resolutions were presented before the House of Delegates in 1954 (3), 1955 (3), 1961 (1), 1964 (4), 1967 (2) and as late as this summer in San Francisco two more resolutions were again rejected.

We did a little research to discover which states had been previously rejected and then caught the attentive ear of some of their delegates whom we knew personally. We discovered that their problem hadn't disappeared. By we, I mean Jim Lundquist and myself, which is what I meant when I said earlier, it is so helpful to have some assistance at a time like this.

It so happened that I was a member of another Reference Committee when the hearing on the Alaska Resolution was held. Here again it was so important to have Drs. Lundquist and Isaak present at the Reference Committee hearing on our Alaska Resolution. It was modified somewhat, but with the help of some of our

good friends from Indiana, Ohio, Arizona and many other states, the resolution was referred to the Board of Trustees for investigation. Furthermore, the Board was instructed to present a report of their findings at the Annual Meeting in New York in July, 1969. You have to understand the workings of the AMA to realize that this "rapid" report-back from the Board of Trustees is very gratifying to achieve. So I am very proud to have been able to present the 1st resolution from Alaska before the House of Delegates and have it favorably acted upon.

It was also a distinct honor and pleasure to sit on the Reference Committee which set down the guidelines for physicians and the institutions who may do the heart transplants. The medical, ethical and legal problems posed here are almost incomprehensible, especially to an Alaskan physician so far removed from the scene of these operations. Listening to the testimony and discussions pro and con was fascinating. But, when it came to writing the final rules and regulations, it required some meditation and soul-searching. Undoubtedly, the criteria for death and requirements for institutions and teams doing the transplants will be revised many times. However, it was a very rewarding experience.

Our committee also considered the Report of the Board of Trustees on Obesity which reiterated the stand of the AMA on the use of potent drugs in the treatment of uncomplicated obesity and advocates continuance of widespread publicity warning the public and physicians against the misuse of such drugs.

Also, we recommended adoption of a resolution from Missouri, for all constituent medical societies to seek enactment of legislation making it legal to treat minors with venereal disease or any other communicable disease, without the consent of the parents or guardian. Happily, I was able to say that in Alaska we already have such a statute enacted by our last legislature.

Among many other actions of the House was a change in the Constitution and By-laws to clarify the AMA's stand on non-discrimination in its ranks. The same action gave the Judicial Council of the AMA power to admonish, censure or even recommend to the House of Delegates that a state association no longer be a constituent member of the AMA, if the state has committed repeated violations.

The osteopathy problem is a great one among our neighbors to the south. As most of

you know, several states allow them to practice in their hospitals, some have even licensed them as M.D.s. After much discussion (and much pressure from the large institutions lacking interns and residents to fill their programs) resolutions were passed to allow osteopaths to practice in hospitals, enter internship and residency programs, even become members of state and county societies, and the AMA. All these resolutions were watered down by semantics with the words-suggest or may. Nevertheless, the osteopath is getting his foot in the door of acceptability further and further each year.

Of special interest to the general practitioner of Alaska, the House adopted the Council on Medical Education's "Special Requirements for Residency Training in Family Practice" and resolved that the AMA "affirm the importance of providing appropriate recognition for family physicians through approval of a primary specialty board for family practice and that the Council on Medical Education be encouraged to continue its efforts with the American Academy of General Practice and the AMA Section on General Practice to achieve this goal."

In Alaska we are becoming more and more aware of federal activity in local health care through Office of Economic Opportunity, Public Health Service and Housing and Urban Development; and on Project Headstart. The House received a detailed report from the Council on Medical Services regarding the activities of these agencies, their motives and designs. At the same time it passed a resolution that the AMA seek to have Congress phase out federal health

care programs which overlap and reduplicate Medicaid. Most of the above programs do just this in many ways.

Just a couple more resolutions adopted, of interest to all Alaskan physicians.

That the AMA "exert every effort to bring about the elimination of unnecessary documentation of medical services by the physicians, hospital and fiscal intermediary on Medicare and Medicaid patients".

That 'physicians and their medical societies should strive to attain the adoption of established principles which are designed to provide the people of this nation with the highest quality of medical care' and that all physicians be reminded "that as free men and women they have no obligation to accept employment and remuneration under any conditions other than those arrived at by agreement between the physician and recipient of his service".

I hope this can give you some idea of the workings of your AMA. Certainly, it is a democratic body. Changes are occurring and the doctors of America seem to be rising to the challenge being presented to them by our demanding society. As stated earlier, the only way we can assure ourselves of having the guiding hand in the future of medicine in our country is by actively participating in our local projects, energetically proposing and supporting intelligent state health and social legislation and letting our wants and feelings be known to our national representatives, whether they be medical or political.

1969 Annual Convention

Alaska State Medical Association

June 4-7, Fairbanks, Alaska

Speakers include:

MICHAEL BEIRNE, M.D.
Anchorage
Toxicology and Drug Testing in Alaska

CARLETON CHAPMAN, M.D.
Dartmouth Medical School,
Heart Disease

PAUL CLARK, M.D.
Alaska Dept. of Health & Welfare
Complications of Smallpox Vaccination

Q. B. DeMARSH, M.D.
University of Washington
Hematologic Diagnosis

LESTER DRAGSTEDT, M.D.
University of Florida
Gastric Ulcers
Adrenalectomy in breast cancer

STANLEY DUDRICK, M.D.
University of Pennsylvania
Long Term Intravenous Feeding

VICTOR GOLDENBERG, M.D.
University of Washington
Organ Changes Induced by Birth Control Pills

FRANZ HALBERG, M.D.
University of Minnesota
Computer Medicine and Biologic Rhythms

C. TAYLOR MARROW, M.D.
Fairbanks
Disease Incidence

WILLIAM RAMBO, M.D.
Medical College of South Carolina
Local and Systemic Therapy of Peritonitis

A panel is planned on Birth Defects.

that I had got into easily enough but could not get out of, try as I might.

The sunset of the evening of the 19th was gorgeous. The air was absolutely clear and calm. The mountains were covered with new fresh snow, the sun painted the western peaks and by the time we got to Anchorage, its light had converted the snow to a blanket of quivering lights.

We were unloaded and back home by eight in the evening well pleased at having been a witness to the remarkable conversion of the people of Tyonek from abject poverty to affluence. There is a lesson to be gained from this experience. Most of the Native people cannot select alternate routes of medical care as they have not all been fortunate enough to have oil and gas discovered in their villages. However, the people of Tyonek chose a private physician over a government physician, hospitalization in a private hospital over "free" hospitalization, and surgery for themselves and those they love by someone they knew instead of a faceless government physician.

Within a few days my wife had scheduled recommended surgery at the Providence Hospital. I could not quite believe that the Tyonek people would, indeed, go through with the surgery because it would entail considerable expense. But, since I wanted nothing to go wrong and since I did not want to have some emergency room or admitting nurse or other person at the Providence Hospital say something like "you must be in the wrong hospital, go over to the Native Service", I had a conference with Sister Barbara Ellen, the administrator of Providence Hospital and Sister Agnes, the fiscal officer, both of whom agreed that they would instruct all personnel in the business office and in the emergency room to see that the Tyonek people, as they came, were treated exactly as any other patient would be treated who came in ill, sober, and scheduled for elective surgery.

By February 10, 1969

the following operations were performed:

T&A	13
T&A with insertion of trans-tympanic tubes	2
T&A with myringotomy	2
Tonsillectomy	6
Submucous Resection of the Nasal Septum with Tonsillectomy and insertion of trans-tympanic tubes	1
Cataract extractions	2
Mastoidectomy (revision)	1
Optical iridectomy	1

In the Providence Hospital, the patients were exemplary. Without any leading questions, the chief nurses on floors where these patients were cared for, volunteered that they were appreciative, quiet, polite and very undemanding. Many patients and the parents of the children volunteered the information that they thought their hospital care was excellent. I asked them what they thought was particularly good about it. Several said, "We do not feel as though we were thrown away here." They were pleased by my visits morning and night, which I do, of course, as a minimum for every patient that I admit to the hospital. They were also very pleased by the shortness of the hospital stay. T&As and tonsillectomies are in and out in 48 hours. The cataract extractions were out in five days. The submucous resection and tonsillectomy cases were hospitalized four days. The optical iridectomy patient was in five days. The mastoid patient was in for four days. The optical iridectomy patient is working in the forests again and received his first pay check in eleven years.

Their complaints about previous medical and surgical care was that they were in the hospital too long, they were never sure who their doctor was and, especially in the case of children, the parents were anxious for many days because no news ever got out to the village as to the progress of the case. At the conclusion of every day's surgery, my office would call the Tyonek people on their radio telephone and tell them as soon as the people were in the recovery room that their operations had been a success and the day they would be ready to leave.

The office was also in constant contact with Spernak Airways to give them some estimate as to when and how many patients would be discharged from the hospital, so that flights in small aircraft could be arranged.

About ten days after the last of these patients had been operated upon, I asked Mr. McCord if he would mind carrying John Spahn and me over so that I could do a post-operative check on everybody, to avoid the much more expensive and time consuming task of having all of these patients brought to Anchorage, since many would have to be accompanied by their parents. He willingly agreed to this and accordingly John and I went over to Tyonek where I looked at my operative patients and saw new patients who have been scheduled for surgery early in 1969, while John adjusted eye glasses, taught the profoundly deaf man mentioned above to use his hearing aid more

efficiently, supplied additional batteries, and instructed in the use of hearing aids and similar tasks.

There is a challenge and an opportunity here for private medicine that is hard to overestimate. There are scores of villages in rural Alaska with youngsters who have never had a pre-school examination. The opportunity for any physician interested in these people and showing them what private medicine can do, is there for the taking. The internist with his experience with a stethoscope can make many diagnoses and he can bring along the necessary syringes and chemicals in order to take blood samples for laboratory procedures that he may feel are necessary. He can get telegraphic or telephonic laboratory diagnoses back from Anchorage or Seattle in almost every portion of the state.

Ours is the only state that has the doubtful distinction of not only tolerating but encouraging segregation. The private physician can break this down if he has the interest. The hospitals of rural Alaska must be opened to people who are sick, and that should be the only criterion for admission. The great insurance companies that

underwrite the health schemes of the various unions, the Blue Cross organizations of various states must all have expunged the fine print clauses of their policies that make their benefits null and void if the subscriber is admitted to a "government hospital".

The rural hospitals, at present run by either federal or state governments, must be made available to all physicians who are licensed to practice medicine and surgery in the State of Alaska. Each of these hospitals must have a hospital board consisting of local citizens and at least one physician. If there is no physician in the area, one who is interested and who may live in the nearest city, should be given the opportunity of serving. Only by this means can medical service of the quality and dignity now accorded only to the white man, be available to the Native people of this state.

I would personally like to see the medical profession lead in this effort, rather than do under duress what it should be doing voluntarily, in a delaying action so characteristic of our profession.



George Ahgupuk

ANALYSIS OF U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE REPORT ON STUDY OF CHIROPRACTIC, MADE PUBLIC AS PART OF HEW REPORT ON THE "INDEPENDENT PRACTITIONERS STUDY"

Prepared and Submitted by AMA

An agency of the federal government after exhaustive study has concluded that chiropractors, who claim they can cure diseases by spinal adjustments, are so poorly educated that they cannot adequately diagnose or appropriately treat human diseases. The agency also found that chiropractors base their practice on ideas which scientists cannot accept.

On the strength of these conclusions, the Department of Health, Education and Welfare has recommended to Congress that chiropractors continue to be excluded from the nation's Medicare program.

Chiropractors have persistently lobbied Congress seeking federal recognition as professional practitioners qualified to treat aged patients who are Medicare beneficiaries. Congress has rejected their pleas. In 1967, Congress directed the Secretary of HEW to conduct a study to determine whether practitioners not included in Medicare, such as chiropractors, should be included. The report of the study, announced by HEW Secretary Wilbur J. Cohen, said chiropractors and naturopaths, who had also appealed for inclusion, should not.

The HEW report also warned that patronizing chiropractors "is undesirable" because "appropriate treatment could be delayed or prevented entirely; appropriate treatment might be interrupted or stopped completely; the treatment offered could be contraindicated; all treatments have some risk involved with their administration, and inappropriate treatment exposes the patient to this risk unnecessarily."

Chiropractors profess the belief that diseases are caused primarily by dislocation of vertebrae, called subluxation, which interferes with functioning of the nervous system and this in turn impairs the ability of the body to maintain health. HEW said: "There is no valid evidence that subluxation, if it exists, is a significant factor in disease processes. Therefore, the broad application to health care of a diagnostic

procedure such as spinal analysis and a treatment procedure such as spinal adjustment is not justified."

"There is a body of scientific knowledge related to health, disease and health care," HEW added. "Chiropractic practitioners ignore or take exception to much of this knowledge despite the fact that they have not undertaken adequate scientific research."

The HEW report also noted that "the inadequacies of chiropractic education, coupled with a theory that de-emphasizes proven causative factors in disease processes, proven methods of treatment, and differential diagnosis, make it unlikely that a chiropractor can make an adequate diagnosis and know the appropriate treatment, and subsequently provide the indicated treatment or refer the patient."

Despite this deficiency in education and the rejection of proven scientific methods in favor of spinal analysis and spinal adjustment, the majority of chiropractors, HEW said, admit they treat such afflictions as chronic heart conditions, high blood pressure, headaches, the common cold, asthma, ulcers, deficiency anemia, tonsillitis, impaired hearing, colitis, hemorrhoids, dermatitis and mental and emotional problems.

A substantial percentage also admit they treat polio, impaired vision, diabetes mellitus, rheumatic fever, pneumonia, hepatitis, mumps, acute heart conditions, appendicitis, pernicious anemia and cerebral hemorrhage. Some even say they treat leukemia and other forms of cancer.

HEW said the study was conducted with the assistance of 48 outside consultants and that every effort was made to insure that the requests for inclusion in Medicare received "unbiased, impartial consideration".

HEW pointed out in its study "... data from earlier and current related studies were relied upon for consideration of facts about each profession included. In addition, the professional organizations of the practitioners being studied

were asked to submit basic information about their professions . . .” In the chiropractic section of the study, both national chiropractic organizations — the American Chiropractic Association and the International Chiropractors Association — made appearances and presented extensive materials to HEW in support of their arguments.

Five expert review panels, one of which was on chiropractic, were named by HEW. They acted as technical and scientific advisors to an Ad Hoc Consultant Group, which in turn served in an advisory capacity to HEW for the study. HEW explained that the panel members “were selected on the basis of their scientific background and high professional reputations in their respective fields. These panels evaluated data submitted by each of the professional organizations, together with that collected by the staff” of HEW.

The Ad Hoc Consultant Group, according to HEW, “discussed with representatives of each of the professional associations its position on independent practice in the Medicare program. They also reviewed analyses from the expert review panels and staff and reports from the professional associations of the disciplines studied.”

“Primary considerations in the study,” HEW said, “were to assure that high quality health care is provided to persons 65 and over who are or will be beneficiaries of the Medicare program, and to assure that beneficiaries have adequate access to care.”

Chiropractic was started in 1895 by Daniel David Palmer, who described himself as a “magnetic healer” before discovering how to adjust the spine. He claims to have cured a man’s deafness by spinal adjustment and developed chiropractic theories from that experience.

Palmer advanced the idea of “Universal Intelligence”, “Innate Intelligence”, and “Educated Intelligence..” Universal Intelligence, he said, was God; Innate Intelligence the “soul, spirit and spark of life --- something within the body which controls the healing process, growth and repair” and “is beyond the finite knowledge”, and Educated Intelligence was the “conscious” utilization of “the cerebrospinal division of the volitional expression of its function”. He claimed that vertebral displacement caused disease by interfering with the planned expression of Innate Intelligence through the nerves and when the displacement was corrected by adjustment, the Innate was allowed to effect the cure. This is still the basic premise of chiropractic.

Palmer asserted that in developing the theories of chiropractic, “I have answered the time-worn question --- what is life?

HEW noted that while some chiropractors do not believe that subluxation is the only cause of disease, spinal analysis the only diagnostic tool or adjustment the only valid treatment, “the concepts of the subluxation and of the spinal analysis and adjustment form the basis of chiropractic thinking and activities” and “they are greatly emphasized over other concepts of diagnosis and treatment and disease causation.” “In the health care field, as in many other fields,” said HEW, “the capacity to give good quality service can be correlated with the quality of the education of practitioners, as well as the quality and extent of research upon which practice is based.”

The study found these significant shortcomings in chiropractic education: “1. Lack of inpatient hospital training; 2. Lack of adequately qualified faculty; 3. Extremely low admission requirements for students; 4. Lack of a nationally recognized accrediting body; 5. Such dissension within the profession that two separate accreditation programs must be maintained.”

The U.S. Office of Education and the National Commission on Accrediting do not recognize the accrediting programs conducted by the two chiropractic groups, the American Chiropractic Association and the International Chiropractors Association.

The HEW also said that “Since the U.S. Supreme Court is the ultimate arbiter of constitutional law in the United States, its decision on chiropractic is a significant measure of the current status of the profession.” The case is *England v. Louisiana State Board of Medical Examiners*, where the Supreme Court ruled that the Equal Protection Clause of the 14th Amendment of the U.S. Constitution does not bar a state from requiring chiropractors to have medical school degrees.

In its ruling, the Supreme Court upheld a U.S. District Court ruling that said: “If the education obtained in chiropractic schools does not meet the standards of . . . the United States Office of Education, it may well be that the Legislature of Louisiana felt that in the public interest a diploma from an approved medical school should be required of a chiropractor before he is allowed to treat all the human ailments chiropractors contend can be cured by manipulation of the spine.”

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Palmer advanced the idea of “Universal Intelligence”, “Innate Intelligence”, and “Educated Intelligence..” Universal Intelligence, he said, was God; Innate Intelligence the “soul, spirit and spark of life --- something within the body which controls the healing process, growth and repair” and “is beyond the finite knowledge”, and Educated Intelligence was the “conscious” utilization of “the cerebrospinal division of the volitional expression of its function”. He claimed that vertebral displacement caused disease by interfering with the planned expression of Innate Intelligence through the nerves and when the displacement was corrected by adjustment, the Innate was allowed to effect the cure. This is still the basic premise of chiropractic.

Palmer asserted that in developing the theories of chiropractic, “I have answered the time-worn question --- what is life?

HEW noted that while some chiropractors do not believe tthat subluxation is the only cause of disease, spinal analysis the only diagnostic tool or adjustment the only valid treatment, “the concepts of the subluxation and of the spinal analysis and adjustment form the basis of chiropractic thinking and activities” and “they are greatly emphasized over other concepts of diagnosis and treatment and disease causation.” “In the health care field, as in many other fields,” said HEW, “the capacity to give good quality service can be correlated with the quality of the education of practitioners, as well as the quality and extent of research upon which practice is based.”

The study found these significant shortcomings in chiropractic education: “1. Lack of inpatient hospital training; 2. Lack of adequately qualified faculty; 3. Extremely low admission requirements for students; 4. Lack of a nationally recognized accrediting body; 5. Such dissension within the profession that two separate accreditation programs must be maintained.”

The U.S. Office of Education and the National Commission on Accrediting do not recognize the accrediting programs conducted by the two chiropractic groups, the American Chiropractic Association and the International Chiropractors Association.

The HEW also said that “Since the U.S. Supreme Court is the ultimate arbiter of constitutional law in the United States, its decision on chiropractic is a significant measure of the current status of the profession.” The case is *England v. Louisiana State Board of Medical Examiners*, where the Supreme Court ruled that the Equal Protection Clause of the 14th Amendment of the U.S. Constitution does not bar a state from requiring chiropractors to have medical school degrees.

In its ruling, the Supreme Court upheld a U.S. District Court ruling that said: “If the education obtained in chiropractic schools does not meet the standards of . . . the United States Office of Education, it may well be that the Legislature of Louisiana felt that in the public interest a diploma from an approved medical school should be required of a chiropractor before he is allowed to treat all the human ailments chiropractors contend can be cured by manipulation of the spine.”

HEW noted that chiropractors spurn research.

"The lack of research is due to a number of factors. Certainly the lack of funds is one. However, considering the qualifications of the faculties of chiropractic schools, it seems unlikely that most faculty members with the qualifications listed would have the capability to undertake basic research. Another major reason for the lack of research is that the chiropractic philosophy has led to a de-emphasis in research since the chiropractor believes he already knows 'basic truths and principles' and since 'Innate' is thought to be beyond finite knowledge."

HEW added: "It is apparent . . . that state licensing laws do not restrict the scope of chiropractic practice since they do not infringe upon chiropractic philosophy or approach to health and disease. A practitioner operating under the chiropractic philosophy has no interest in the use of major surgery or drugs and therefore a prohibition against these treatments does not alter his mode of practice."

Chiropractors are licensed in 48 states, but, as HEW observed, "licensure generally is considered a means of protection for the public, rather than as official recognition of the licensee."

The 12 chiropractic schools require only a high school diploma for admission (and one does not even require that), and four of the schools accept C average students. HEW said that very few chiropractic students have college level degrees but, in contrast, 84 percent of students entering U.S. medical schools have bachelors degrees or higher and 91 percent of medical students had a B average or higher in college. The average student-faculty ratio in chiropractic schools was 19 students for each faculty member (1965-68) compared with 1.7 students for each faculty member in medical schools (1966-67).

"Chiropractic theory and practice," HEW concluded, "are not based upon the body of basic knowledge related to health, disease and health care that has been widely accepted by the scientific community. Moreover, irrespective of its theory, the scope and quality of chiropractic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment."

"Therefore, it is recommended that chiropractic service not be covered in the Medicare program."

AD HOC CONSULTANT GROUP for HEW Study

The following 22 persons served as member of the Ad Hoc Consultant Group, which HEW said it "established to advise on over-all aspects of the study...." These consultant appointees, reported HEW, "were sought for their lack of bias and their knowledgeability; none served as a representative of any health profession with vested interest in the conclusions to come from the study."

Frank Bane, Chairman, Washington, D.C.
Montague W. Cobb, M.D., Chairman, Department of Anatomy, Howard University, College of Medicine, Washington, D.C.
Nelson H. Cruikshank, Member HIBAC, Washington, D.C.
Fred C. Diamond, President, Hillhaven, Inc., Tacoma, Washington.
Howard W. Ennes, Jr., 2nd Vice President, Community Services, Equitable Life Assurance Society of the United States, New York, New York.
Archibald R. Foley, M.D., Chairman, Department of Psychiatry, The Catholic Medical Center of Brooklyn and Queens, Inc., Brooklyn, New York.
James G. Haughton, M.D., First Deputy Administrator, Health Services Administration, City of New York, New York, New York.
Reid T. Holmes, President, Chief Executive Officer, North Carolina Baptist Hospitals, Inc., Winston-Salem, North Carolina.
Jack Kleh, M.D., Medical Consultant, Department of Public Welfare, District of Columbia, Washington, D.C.
Leslie W. Knott, M.D., Los Gatos, California.
Margaret D. Lewis, Director, Denver Visiting Nurse Service, Denver, Colorado.
Darrel J. Mase, Ph.D., Dean, College of Health Related Professions, University of Florida, Gainesville, Florida.
Floyd D. McNaughton, Arlington, Virginia.
Saad Nagi, Ph.D., Professor, Department of Sociology, Ohio State University, Columbus, Ohio.
Senator Maurine B. Neuberger, Chairman, Citizens Advisory Council on the Status of Women, Washington, D.C.
Walter Newburgher, President, Congress of Senior Citizens of Greater New York, New York, New York.
Sam Pollock, President, Meat Cutters District Union 427, AFL-CIO, Cleveland, Ohio.
Ernest W. Seward, M.D., Medical Director, Kaiser Foundation Hospitals, Portland, Oregon.
William K. Selden, LL.D., Princeton, New Jersey.
Sidney I. Silverman, D.D.S., Professor and Chairman, Department of Graduate and Post Graduate Prosthodontics, College of Dentistry, New York University, New York, New York.
William A. Spencer, M.D., Director, Texas Institute for Rehabilitation and Research, Houston, Texas.
William B. Strong, D.O., New York, New York.

EXPERT REVIEW PANEL ON CHIROPRACTIC AND NATUROPATHY for HEW Study

The expert review panel on chiropractic and naturopathy was one of five similar panels named by HEW to assist with various sections of the study. It consisted of eight members who served as technical and scientific advisors to the Ad Hoc Consultant Group. The panel members, HEW explained, were selected "on the basis of their scientific background and high professional reputations in their respective fields." Also, HEW explained, "They brought to bear on the matters before the Ad Hoc Consultant Group their own knowledge of the education of the health professionals studied and of basic and clinical science." The following are the members of the expert review panel on chiropractic and naturopathy:

Donald Duncan, M.A., Ph.D., Chairman, Professor and Chairman of Anatomy, University of Texas Medical Branch, Galveston, Texas.
Jack Edeiken, M.D., Department of Radiology, Jefferson Medical College Hospital, Philadelphia, Pennsylvania.
James J. Feffer, M.D., Associate Dean for Clinical Affairs, George Washington University Medical Center, Washington, D.C.
James D. Hardy, Ph.D., D.Sc., Director, John B. Pierce Foundation of Connecticut, Inc., New Haven, Connecticut.
John McMillan Menell, M.D., Chief, Physical Medicine and Rehabilitation, Philadelphia General Hospital, Philadelphia, Pennsylvania.
Joseph E. Milgram, M.D., Professor of Clinical Orthopaedic Surgery, Albert Einstein College of Medicine, New York, New York.
Bernard Sandler, M.D., Director, Rehabilitation Medicine, Kingsbrook Jewish Medical Center, Brooklyn, New York.
Walter I. Wardwell, Ph.D., Professor of Sociology, Department of Sociology, University of Connecticut, Storrs, Connecticut.

ALASKA STATUTES

TITLE 8

CHAPTER 20. CHIROPRACTORS

Sec. 08.20.100. Practice of chiropractic without license prohibited. No person may practice chiropractic in the state without a license. (sec 35-3-21 ACLA 1949).

Cited in Territory of Alaska v. Hawkins, 9 Alaska 573.

Am. Jur., reference. — 41 Am. Jur., Physicians and Surgeons, secs 15, 16, 27.

Sec. 08.20.110. Application for license. A person desiring to practice chiropractic shall apply in writing to the board. (sec 35-3-26 ACLA 1949)

Sec. 08.20.120. Qualifications for license. An applicant shall be issued a license to practice chiropractic if he

(1) is at least 21 years of age;

(2) has had a high school education or its equivalent;

(3) has successfully completed at least two academic years of study in a college of liberal arts or sciences;

(4) is a graduate of a legally chartered accredited school or college of chiropractic, approved by the board, which requires for graduation a residence course of instruction of not less than four years of nine months each;

(5) passes an examination given by the board; and

(6) has a certificate of registration in the basic sciences as provided by AS 08.16.200. (sec 35-3-25 ACLA 1949); am sec 1 ch 53 SLA 1955; am sec 1 ch 91 SLA 1965)

Effect of amendment. — The 1965 amendment rewrote the introductory paragraph and changed the tense of the initial verbs in paragraphs (1) through (6).

Article 4. General Provisions (Alaska Statutes 08.20.220)

Section

220. Chiropractic defined

Sec. 08.20.220. Chiropractic defined. Chiropractic is the science of locating and correcting interference with nerve energy transmission and expression within the human body, and the employment and practice of drugless therapeutics, including physiotherapy, hydrotherapy, mechanotherapy, phytotherapy, electrotherapy, chromotherapy, thermotherapy, thalmotherapy, correcting and orthopedic gymnastics, and dietetics which includes the use of foods and those biochemical tissue building products and cell salts found within the normal human body, without the use of drugs or surgery. (sec 35-3-22 ACLA 1949)

Prescription of drugs or medicine illegal. — It is illegal and criminal for a chiropractor, without additional qualifications, to prescribe drugs or medicine to sick or injured persons. 1961 Op. Atty. Gen. No. 23.

Expenditures from fishermen's fund for medicine prohibited. — Money cannot be expended from the fishermen's fund for the payment of charges for medicine prescribed by chiropractors. 1961 Op. Atty. Gen. No. 23.

ANNOTATION (37 A.L.R. 680)

Constitutionality of statute prescribing conditions of practising medicine or surgery as affected by question of discrimination against particular school or method.

The present annotation, discussing the constitutionality of a statute prescribing the conditions of practising medicine or surgery as affected by the question of discrimination against a particular school or method, is supplemental to an earlier treatment of the subject in 16 A.L.R. 709.

The recent decisions follow the general rule to the effect that, in the exercise of the power to regulate the treatment of disease, a statute need not be uniform with respect to all methods and systems of practice, but may exempt or subject to peculiar regulations certain schools or methods of practice so long as the discrimination is not arbitrary or unreasonable. *Carpenter v. State* (1921) 106 Neb. 743, 184 N. W. 941; *State v. Barnes* (1922) 119 S.C. 213, 112 S.E. 621. *Baker v. State* (1922) 91 Tex. Crim. Rep. 521, 22 A.L.R. 1163, 240 S.W. 924; *Johnson v. State* (1925) — Tex. Civ. App. —, 267 S.W. 1057; *State v. Waldram* (1925) — Utah, —, 231 Pac. 431. And see the reported case (*People v. Witte*, ante, 672). See also *State v. Graves* (1925) — Minn. —, 201 N.W. 933, Compare *People v. Schaeffer* (1924) 310 Ill. 574, 142 N.E. 248.

Thus in *State v. Waldram* (1925) — Utah, —, 231 Pac. 431, it was held that a statute which permitted general practitioners of medicine to practise chiropractics without a special examination or license, but required chiropractors to pass special examinations and secure a license, was not unconstitutional as a discrimination against practitioners of chiropractics.

In *Johnson v. State* (1925) — Tex. Civ. App. —, 267 S.W. 1057, the statute involved provided that all applicants for license to

practise as physicians or surgeons in the state must pass an examination before the board of medical examiners, and present satisfactory evidence of graduation from a bona fide reputable medical school in which the courses of instruction embraced not less than four terms of eight months each, and covered the subject of anatomy, physiology, chemistry, histology, pathology, bacteriology, diagnosis, surgery, obstetrics, gynecology, hygiene, and medical jurisprudence. It appeared that the defendant, who was practising as a chiropractor, had not complied with the provisions of the statute. The question of constitutionality was raised on the ground that the act discriminated against chiropractors and schools of chiropractic. The opinion of the court, in upholding the constitutionality of the statute, declared: "The legislature did not by its enactment of the Medical Practice Act forbid the practice of any recognized school or system of healing. Neither did it assume to provide for an education and examination appropriate to any particular school, nor did it discriminate between different schools of medicine. . . In the interest of the public health and the general welfare of the people, the legislature is authorized to prescribe such regulations to be conformed to by persons seeking to enter the practice of medicine as in its judgment will secure, or tend to secure, the people against the consequences of ignorance and in capacity, as well as of deception and fraud, and this without regard to any special system or practice of any established school of medicine . . .

Regardless of the school of medicine or system of practice followed by the practitioner of medicine in any of these systems, the general welfare of the people demands that such practitioner be able to detect, readily, the presence of disease, and to treat it in some manner recognized as appropriate for its removal. In order that assurance may be had that the undoubted right to prescribe a general preparation to be made by one entering such profession, and also to prescribe that he shall have a knowledge of what the legislature may deem the necessary scientific branches of such profession. . . These conditions apply to all persons alike; they do not prescribe any method to be employed in healing disease or any system of practice to be adopted by the practitioner. If he possesses the qualifications prescribed by the statutes, and is awarded a certificate to practise medicine, he is just as free to adopt the system of the chiropractor as he is to adopt the system of the regular physician. The fact that it requires a broader education than is given by the chiropractic college to meet these conditions cannot be urged as a discrimination against such schools of medicine. It is easily within the power of a chiropractor to conform to the prescribed conditions."

The rule was applied in *State v. Barnes* (1922) 119 S.C. 213, 112 S.E. 62, wherein it appeared that a chiropractor, after failing to pass the examination and secure the license required by statute, nevertheless engaged in the practice of medicine, but without the use of medicine or knife, the court said: "The main ground upon which the alleged capricious and unreasonable features of the act are urged is that the chiropractor is required to familiarize himself with certain subjects which have no place in his branch of the healing art, such as anatomy, physiology, hygiene, toxicology, minor surgery, medical jurisprudence, pediatrics, bacteriology, and pathology. Naturally the first step in the remedial process is diagnosis to find out what is the matter with the patient. To a layman's view, a familiarity with most, if not all, of the subjects named, is essential to a proper discharge of his initial process, and equally so to the administration of the proposed remedy. Whether they are or not, however, is not a judicial question. It has been so declared by the legislative authority, based, we must assume, upon bona fide scientific grounds, and the requirement does not present such evidence of caprice or unreasonableness as to justify a destruction of a plan devised for the protection of the public."

Chiropractors. (86 A.L.R. 630)

A chiropractor, according to the statutes and the decisions thereunder, can neither prescribe internal curative medicine (*People v. Machado* (1929) 99 Cal. App. 702, 279 Pac. 228; *State ex rel. Wentworth v. Fahey* (1927) 152 Minn. 220, 188 N.W. 260 (dictum); *State Medical Examiners v. Baudendistel* (1928) 6 N.J. Mis. R. 249, 140 Atl. 886 (affirmed in (1929) 105 N.J.L. 497, 144 Atl. 921); *Heintze v. State Medical Examiners* (1931) 107 N.J.L. 420, 153 Atl. 253 (affirmed in (1933) 110 N.J.L. 24, 163 Atl. 892), in which it was held that the prescribing of a vegetarian diet and the use of flaxseed tea in connection with electrical treatment constituted practising medicine without a license) nor practice surgery (*People v. Mount* (1928) 93 Cal. App. 81, 269 Pac. 177; *State ex rel. Wentworth v. Fahey* (1927) 152 Minn. 220, 188 N.W. 260 (dictum); *State v. Lydon* (1932) 170 Wash. 354, 16 Pac. (2d) 848 (implied)).

In *People v. Mount* (1928) 93 Cal. App. 81, 269 Pac. 177, a prosecution for homicide, the court, declaring that one licensed as a chiropractor has no legal right to practise surgery, said that the use of surgical instruments by such a one was negligence in itself. (The improper treatment of disease as homicide is comprehensively discussed in an annotation in 9 A.L.R. 211.)

A chiropractor cannot give electrical treatments without exceeding his authority. *State Medical Examiners v. Livesey* (1928) 6 N.J. Mis. R. 177, 140 Atl. 444 (affirmed in (1928) 105 N.J.L. 255, 143 Atl. 919); *State Medical Examiners v. Blechschmidt* (1928) 6 N.J. Mis. R. 682, 142 Atl. 549 (affirmed in (1929) 106

N.J.L. 602, 146 Atl. 918); Heintze v. State Medical Examiners (1931) 107 N.J.L. 420, 153 Atl. 253 (affirmed in (1933) 110 N.J.L. 24, 163 Atl. 892); State Medical Examiners v. DeBaun (1929) 7 N.J.Mis. R. 1040, 147 Atl. 744 (unless he has practised fourteen years after having graduated from a legally incorporated electrotherapeutic school).

The electric treatments by a licensed chiropractor who had not been continuously engaged in giving such treatments for the statutory period of years after having graduated from a legally incorporated electrotherapeutic school in good standing, found objectionable in State Medical Examiners v. DeBaun (1929) 7 N.J. Mis. R. 1040, 147 Atl. 744, were galvanic current treatments alleged to produce heat for relaxation of the muscles. The court said: "Electricity is a dangerous instrumentality, with the ever present capacity to do serious bodily harm unless restrained within proper limitations. It is essential that its use as applied to the human body should be under the direction of authorized persons. Its use in the instant case was a part of the art of healing. The specific use above referred to in no wise involved the function of hand manipulation. We are unable to conceive of any hypothesis in the proofs in the case upon which the use of electricity in the manner stated is a part of the practice of chiropractice."

A licensed chiropractor using a machine called a concusser, which caused a light to shine in the eye, being connected with an electric current, was held in State Medical Examiners v. Blechschmidt (1928) 6 N.J. Mis. R. 682, 142 Atl. 549 (affirmed in (1929) 106 N.J.L. 602, 146 Atl. 918), to be practising medicine without a license; the court saying that the practice of a chiropractor is limited to manipulation of the body and spinal column by the hand.

ANNOTATION (54 A.L.R. 600)

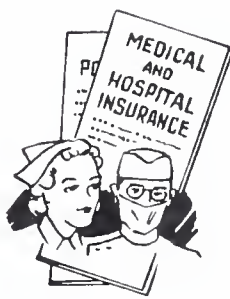
Constitutionality of statute prescribing conditions of practising medicine or surgery as affected by question of discrimination against particular school or method.

(Constitutional Law, 374)

The earlier cases discussing the constitutionality of a statute prescribing the conditions of practising medicine or surgery as affected by the question of discrimination against a particular school or method are collected in previous annotations found in 42 A.L.R. 1342; 37 A.L.R. 680; and 16 A.L.R. 709. The reported case (Louisiana State Medical Examiners v. Fife, 594) seems to be the only recent one wherein the subject is treated.

In the reported case (Louisiana State Medical Examiners v. Fife) it appears that a statute regulating the practice of medicine required any person entering on the practice of medicine in any of its branches to stand an examination before the medical board on such subjects as Anatomy, Physiology, Chemistry, Bacteriology, Pathology, Materia Medica, Obstetrics, and Gynecology. This law declared specifically to be inapplicable to legally licensed dentists, pharmacists, or osteopaths, practising according to existing laws. The court upholds the constitutionality of the statute, which is held not to be discriminatory against the chiropractic system, a school not included within the special exception, although the practice of chiropractic does not require knowledge of all of the subjects on which an applicant is required to be examined before being admitted to the practice.

J.Q.L.



INSURANCE PAYMENTS TO CHIROPRACTORS

SHOULD THE ALASKA WORKMEN'S COMPENSATION ACT REQUIRE THAT CASUALTY INSURANCE CARRIERS LICENSED IN ALASKA REIMBURSE PATIENTS FOR CHIROPRACTIC CARE?

A careful and objective panel study of chiropractic theory and practice has led the U.S. Department of Health and Welfare to conclude that this is not a valid health service, and to exclude chiropractic care from Medicare reimbursement. However, due to inclusion of chiropractors in the definition of "physician" under the regulations of the Alaska Workmen's Compensation Act*, Alaskan insurance carriers are required to pay chiropractic bills even when

submitted under individual insurance policies covering "physicians' services" for illness totally unrelated to the Act. A revision of the Alaska Workmen's Compensation Act to exclude chiropractors would raise the standards of health care in Alaska, while simultaneously reducing the soaring costs of medical care and health insurance.

*"Medical and Related benefits" (Alaska Workmen's Compensation Act. 23.30.265) includes but is not limited to physicians' fees, nurses' charges, hospital services, hospital supplies, medicine and prosthetic devices, physical rehabilitation, and treatment for the fitting and training for use of such devices as may reasonably be required which arises out of or is necessitated by an injury, and transportation charges to the nearest point where adequate medical facilities are available." Physician is defined as including "doctors of medicine, surgeons, chiropractors, osteopaths, dentists, and optometrists."

CHIROPRACTOR'S LIBEL SUIT DISMISSED

A Louisiana chiropractor's \$150,000 libel suit against Joseph A. Sabatier, Jr., M.D., chairman of AMA's Committee on Quackery, has been dismissed after an emotion-packed two-day trial in Baton Rouge.

The suit by chiropractor Russell A. Aker stemmed from statements by Dr. Sabatier referring to "a chiropractor from Woodville" whose daughter died of meningitis in 1957.

Taking the stand in his own defense, Dr. Sabatier was asked by the plaintiff's attorney whether he would "feel compelled" to make references in the future to the meningitis death of the chiropractor's daughter. Dr. Sabatier responded that after hearing the evidence, he would have been even "more positive".

Overwhelming: Judge Fred Blanche of East Baton Rouge Parish District Court dismissed the suit with the comment that the medical evidence was "overwhelming that if she (the chiropractor's daughter) had been seen by a medical doctor two days earlier, or three days earlier, the chances of saving her life were probable."

He rejected a charge of malice on the part of Dr. Sabatier. He said:

"It was implied that because of the lack of proper medical care, she died. But in the light of medical evidence, every statement made in such context, this court could not rule that there was maliciousness" in Dr. Sabatier's statements.

Aker admitted under questioning that he and another chiropractor "manipulated" Aker's daughter, Gloria, 8, as often as "every 30 to 40 minutes" during the final stages of her three-day illness before she was taken to the hospital.

Taken to Hospital: Aker testified that the child was taken to a hospital at Centreville, Miss., and then — with the aid of a resuscitator — taken by ambulance to Baton Rouge General Hospital. The child died two days later.

Aker made his admissions after first testifying that he did not treat infectious diseases. However, the defense introduced evidence of a three-page advertisement placed in the Woodville, Miss., Republican by Aker on June 29, 1956, in which Aker claimed chiropractic could cure cancer and polio, among other diseases.

Aker denied treating patients for infectious diseases, but admitted training in 1949-51 at Texas Chiropractic College to recognize meningitis. He also admitted treating his own family to prevent childhood diseases.

Aker alleged in his suit he had been libeled and slandered by statements of Dr. Sabatier before a Louisiana legislative committee considering licensure for chiropractors in 1966, and to a reporter for the Louisiana State U. student newspaper—who later married Aker's daughter.

The judge ruled that no reference was made to Aker by name during the legislative session. He added: "The circumstances surrounding Dr. Sabatier's comments to the legislature should be explained. Dr. Sabatier was president-elect of the Louisiana State Medical Society at the time.

"That statement before the committee hearings of the Louisiana legislature in 1966, was made at a time of pending legislation concerning the licensure of chiropractors, and Dr. Sabatier was making the case for the medical profession that they (the chiropractors) should not be licensed because they constituted a health hazard to the public."

MDs Testify: Testimony revealed that Richard Field, Jr., M.D., Centreville, Miss., who first saw the Aker child and diagnosed spinal meningitis, threatened to call the sheriff to keep Aker from giving his daughter additional "adjustments" in the hospital. Aker also sought to give adjustments while his daughter was in an iron lung in Baton Rouge General Hospital, according to Joseph R. Hirsch, M.D., Baton Rouge pediatrician.

The Centreville Hospital records showed the child was "acutely ill, dehydrated, irrational . . . with opisthotonus."

The hospital record noted at another time: "Patient going downhill . . . Parents warned against neck manipulation."

Mrs. Ann Waddell, a Woodville nurse, testified she heard the Aker child screaming while her father was giving her adjustments at home.

Dr. Hirsch testified the opisthotonus was gone when the child arrived at Baton Rouge. "This sustains my assumption of brain herniation," he said, suggesting this could have been caused by the chiropractic "adjustments."

Dr. Sabatier described Aker's practice as "well intended, but nonetheless (it) appears to be an erroneous fundamental health application . . . My concern is that people who consult these practitioners are . . . placing their confidence, even their lives, in the hands of these practitioners." AMA News, December 23, 1968

NO DOUBLE STANDARDS FOR PATIENT CARE

A federal court ruled in a 1965 landmark opinion that a state can refuse to license chiropractors unless they meet the same educational standard required of doctors of medicine.

In June 1966 the U.S. Supreme Court affirmed the opinion and in October of the same year denied the chiropractors' petition for a rehearing.

The case, *England vs Louisiana State Board of Medical Examiners* (246 F Supp 993), had been in various courts since 1957. Jerry R. England and a group of other Louisiana chiropractors sought to prohibit the State Board of Medical Examiners from enforcing provisions of the Louisiana Medical Practice Act that require a chiropractor to meet the same educational standards required of medical practitioners.

A three-judge panel in the U.S. District Court for the Eastern District of Louisiana, New Orleans Division, heard arguments for both sides in March 1965. During the case, the Louisiana State Medical Society joined the State Board of Medical Examiners as an intervenor.

The three judges issued a unanimous opinion on Nov. 9, 1965. They rejected arguments of the chiropractors that their constitutional rights were being violated.

Judge J. Skelly Wright wrote the opinion, and Judges Warren L. Jones and Herbert W. Christenberry concurred.

In the opinion, Judge Wright explained the question before the court:

"At the outset it should be noted that the laws of the State of Louisiana do not prohibit the practice of chiropractic. As a matter of fact, as this record shows, one chiropractor complied with the provisions of the Medical Practice Act and subsequently practiced chiropractic in the state. The question here is: May Louisiana require a chiropractor to obtain what is in effect a medical education from an approved medical school before he may practice his profession in the state?"

The judges held that the state has this right "to protect the health of its citizens" and also pointed out:

"If the education obtained in chiropractic schools does not meet the standards of the . . . United States Office of Education, it may well be that the Legislature of Louisiana felt that in the public interest a diploma from an approved medical school should be required of a chiropractor before he is allowed to treat all the human ailments chiropractors contend can be cured by manipulation of the spine."

SIGNIFICANCE OF DECISION

Most state chiropractic licensing laws, in the interest of public health, attempt to limit the scope of practice of chiropractors.

In Louisiana, the court ruled that the state had not done "more than is necessary to protect the health of its citizens" by requiring Louisiana chiropractors to conform to the educational requirements of the Medical Practice Act or cease their practice.

The England case is significant because it substantiates medicine's position that chiropractic is an unscientific cult. The court ruled after a detailed review of chiropractic principles and practices as presented by chiropractic's leading spokesmen. The public generally has little awareness of the shortcomings of chiropractic theory and education. The England case serves to increase public awareness.

The decision, with its affirmance by the U.S. Supreme Court, represents a clear precedent for the federal courts, and a persuasive authority for all state courts. The opinion of the courts was that it is not irrational and unreasonable for a state legislature, as a means of protecting the health of its citizens, to require chiropractors to meet the same requirements as doctors of medicine. In effect, the nation's highest courts thus held for one scientific standard of health care.

STATEMENTS FROM COURT'S OPINION

The court, in its opinion, commented:

"As broadly defined by its proponents, chiropractic is a healing art designed to relieve human ailments by manipulation and adjustment of the spine. It is chiropractic doctrine that most, if not all, human ailments result from a slight misalignment, or subluxation, of contiguous vertebrae. This subluxation tends to impinge on nerves emanating from the spinal cord through apertures in the vertebrae. As a result of the impingement, the innervation to the parts of the body served by the impinged nerve is abnormally altered, and such parts become diseased or predisposed to disease. The realignment of these subluxated vertebrae through manipulation of the spine by the chiropractor removes the impingement and restores the nerve function to the diseased parts of the body. Chiropractic science postulates that the commonly accepted cause of disease, such as viruses and germs, are merely secondary factors acting on parts of the body already predisposed to disease by nerve impingement. Thus disease results from a lack of resistance to the viruses and germs which are always present in the body."

"There seem to be two schools of chiropractic. The members of the International Chiropractors Association apparently believe that there is one cause of disease — subluxation of the vertebrae — and one cure — manipulation of the spine to relieve the subluxation. The American Chiropractic Association, while not as absolute in its approach to the problem of disease, nevertheless feels that chiropractic is a complete and independent healing art which not only can prevent disease, but can cure disease if the manipulation of the spine begins in time."

The conclusion of the three judges was this:

"In this litigation they (the chiropractors) seek an injunction prohibiting the Louisiana State Board of Medical Examiners from enforcing the licensing provisions of the Louisiana Medical Practice Act against them. After a full trial on the merits, we conclude that the application for injunction must be denied and this case dismissed."

EXTRACTS OF TESTIMONY

Prominent Louisiana physicians and scientists presented affidavits and testimony during the court action and leading chiropractic educators and spokesmen testified for England and the other chiropractors. Excerpts from some of the affidavits and testimony furnish an interesting and informative look at the proceedings.

Alton Ochsner, Sr., M.D., Director of Surgery at the Ochsner Clinic and Ochsner Foundation Hospital, pointed out in his affidavit that he had extensive experience as a consultant to the Surgeon Generals of the Army, Navy and Air Force and to Walter Reed Hospital, Washington, D.C. He said,

"I am aware of no scientific endeavor initiated by any practitioner of chiropractic. I am aware of no recognition by the Medical Departments of the Armed Forces of the United States of the theory of chiropractic or chiropractic treatment."

Dr. Ochsner, who was chairman and professor of the Department of Surgery of Tulane University School of Medicine for 31 years before becoming professor emeritus, explained "the real danger of the chiropractic theory." In his judgment, Dr. Ochsner said, this danger does not concern the large area of self-limiting diseases, which cure themselves in time unless complications develop, "but is far more concerned with the other illnesses where only careful examination and proper, accurate diagnosis can make possible the institution of proper treatment that will bring about the relief of the patient's symptoms and the cure of the disease."

The affidavit of Hyman S. Mayerson, Ph.D., stressed that "as a scientist working actively in the field for almost 40 years" he knew of "no significant contribution that has ever come from any of the chiropractic schools or investigators."

Dr. Mayerson said that the theory of chiropractic has never been given any credence in the scientific community. He has been professor of physiology and chairman of the Department of Physiology at Tulane University School of Medicine for more than 20 years, and has been teaching physiology for about 40 years. Dr. Mayerson concluded,

"Present day science requires intimate cooperation of scientists in all disciplines. It has been outstanding that chiropractic has not, and does not, enter into this partnership of scientists nor have any of those who advocate the theories of chiropractic made any efforts in this direction."

CHIROPRACTIC WITNESSES

One of the witnesses for the chiropractors was Joseph Janse, D.C., President of the National College of Chiropractic, Lombard, Ill., and a member of the Committee for Standardization of Chiropractic Principles of the American Chiropractic Association. Janse was questioned by Robert E. LeCorgne, Jr., one of the attorneys representing the Louisiana State Board of Medical Examiners. The following excerpts are from Janse's testimony:

LeCorgne: Have you ever studied immunization?

Janse: I think, to a moderate degree.

LeCorgne: Is it taught in a chiropractic school?

Janse: In the field of public health and hygiene and sanitation, yes.

LeCorgne: But they do not use it in their practice?

Janse: No, we do not employ the procedures of artificial immunization.

LeCorgne: What is the chiropractic treatment for polio?

Janse: Chiropractic treatment for polio in the initial stages of polio, in the prodroma, is the adjustment primarily.

William D. Harper, D.C., Dean of the Texas Chiropractic College, Pasadena, Texas, was another chiropractic witness. On the stand, Harper testified that although he held a master's degree, it was in general engineering, and his teaching at the chiropractic college had been in "principles, physiology, and pathology."

LeCorgne: In your book (Harper, W.D.: *Anything Can Cause Anything*. San Antonio, Texas: W. D. Harper, 1964) . . . I get the impression from reading it that at one point you say that some workings of the individual psychic thought could cause a subluxation?

Harper: Yes, because psychic irritation of the nervous system can through irritation of the cord and into the anterior horn cause muscle contraction and in turn produce a subluxation in which case the subluxation becomes one of the symptoms of the complex and not the cause of the phenomena as long as the original irritation, be it clinical or psychic, remains.

LeCorgne: In other words, I could think myself into a subluxation?

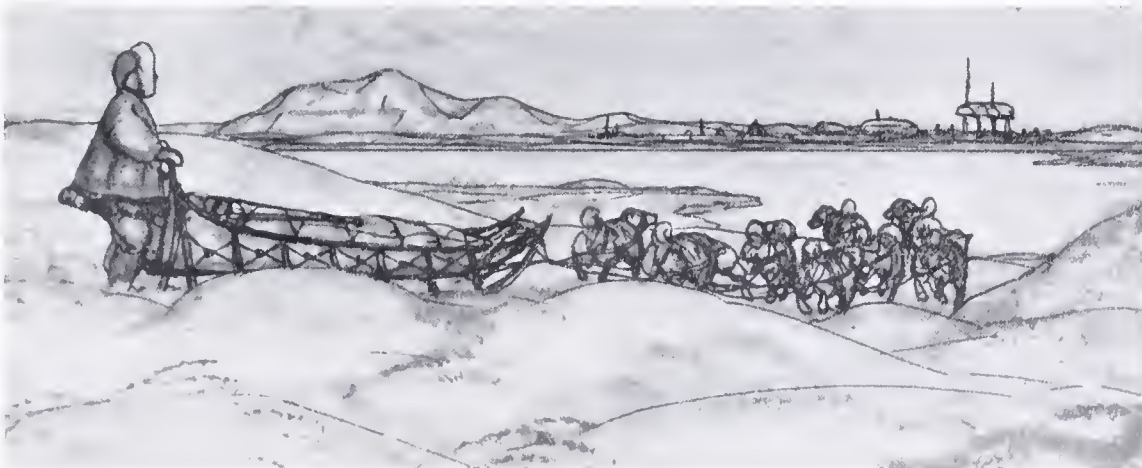
Harper: You could Now, pardon me, may I say one thing. That is one of the, as a perfect example, I have suffered today from the irritation of being up on this stand. This is my first experience. I am demonstrating the fact today.

LeCorgne: You mean you think I am giving you a subluxation?

Harper: Yes.

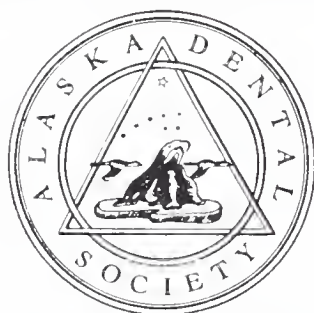
In November 1966 the AMA House of Delegates adopted a policy statement which says, in part:

"Chiropractic constitutes a hazard to rational health care . . . because of the substandard and unscientific education of its practitioners and their rigid adherence to an irrational, unscientific approach to disease causation." — William J. Monaghan (from JAMA 206:219) November 25, 1968



George Ahgupuk

AURORA DENTATUS



R. A. Smithson, D.D.S.
Editor

In June of 1968 at the Alaska State Dental Meetings in Anchorage, a group of dentists interested in better dentistry for children met to form what is now the Alaska Society of Dentistry for Children. This is a state charter unit of the American Society of Dentistry for Children.

I was privileged to represent our state unit at the National Convention at Miami Beach in October and received our official state charter. Charters were also presented to the states of Vermont and New Hampshire which now establishes state units in all fifty states.

Dr. Manuel Album, then President of the American Society of Dentistry for Children, provided our unit with the initial incentive as he was the guest lecturer at the South Central Dental Society meeting in May, 1968.

A minimum of ten dentists was required to obtain a charter unit, based on the number of dentists in Alaska. I am pleased to report that the interest has been very good and there are approximately thirty members in the A.S.D.C. which is a very good percentage of all the dentists in Alaska. Even more encouraging is the fact that all areas of the state are represented by the society.

The primary purposes of the A.S.D.C. are:

1. To encourage more and better practice of dentistry for children throughout the profession.
2. To teach parents and children the importance of dentistry for children.
3. To inform the public of the practical preventive measures available through dentistry for children.

Because we live in a young state, with adventurous citizens, we naturally find that a large percentage of our patients are very young, particularly if we encourage this type of practice. What better time to educate the dental patient than the pre-school age. If we can successfully treat these young patients and make their dental

appointments pleasant experiences, then we have excellent chance of preventing them from later becoming "dental cowards". The "dental coward" is an adult who will seek dental care only when pain overcomes his fear.

Most of the activities of these first few months have been concerned with organization of the society. Our first annual meeting will be held in conjunction with the Alaska State Dental meeting to be held in June at Glacier Bay.

All members receive the Journal of Dentistry for Children. This is a very fine journal of approximately sixty to eighty pages. It is now published bi-monthly but is scheduled to become monthly in the near future.

One of our members is invited to attend a four day workshop each July. This is held in the new A.D.A. building in Chicago and the tab including transportation is picked up by the A.S.D.C. The 1968 workshop was attended by Dr. Geraldine Morrow, our Secretary-Treasurer, and was very profitable. Although many pedodontists and orthodontists belong to the national society, the workshops are limited to the general practitioner.

The care of these young patients can be a very rewarding experience and I would like to invite anyone interested to join us.

By William E. Bline, D.D.S.,
President, Alaska Chapter A.S.D.C.

DENTAL SEMINAR HELD IN JUNEAU

A sizeable group of dentists from throughout Alaska was privileged to attend the annual meeting of the Southeastern Alaska Dental Seminar group, which arranged with the University of Washington's Dr. Thomas Lewis for a course in oral roentgenology in Juneau, February 28 and March 1.

Dr. Wm. J. Updegrave, Professor of Oral Roentgenology, Temple University, School of Dentistry, Philadelphia, is a world renowned teacher and lecturer in dental radiography techniques and rationale.

Drs. George Fraley and Bob Horchover graciously arranged for their office to be used for the demonstration portion of the course.

Dr. Updegrave stressed the use and advantages of paralleling techniques with the long cone and related subjects.

ORAL CANCER DAY

May 7, 1969

By Griffith R. Steiner, D.D.S.

AOS State Chairman Oral Cancer Day

Once again the Alaska Dental Society and The American Cancer Society are cooperating in sponsoring Oral Cancer Day on May 7, 1969.

Previous years have demonstrated mixed public response to the profession's offer of free oral cancer examinations. Not enough people were checked to satisfy us and this year in Anchorage we are going to leave our offices, get out and examine and educate the public. We are going to make a unique attempt to situate campers or trailers in strategic locations in Anchorage which will be staffed by dental teams. Hopefully, by making it convenient and easily accessible to obtain an oral examination, the response will greatly increase.

Alaskan dentists realize that they possess the best opportunity (aside from the patient) to detect oral cancer, and that it is the profession's obligation to accept this responsibility.

An assumption may be made that since the oral cavity is easily accessible for examination, a patient with an oral lesion would have a greater chance for cure. Unfortunately, this is not true, mainly because an oral cancer is not detected until late in development. Specifically, we are attempting to reach that segment of the population who does not seek routine or regular dental care.

Malignancy of the oral regions accounts for five per cent of all forms of human cancer, while 15 to 20 per cent of it occurs in the head and neck regions.¹ Anyone may fall victim although there seems to be a predilection towards male patients over the age of 50 years.²

There may be a number of pre-disposing factors for the development of malignancy in the oral regions.³ A finger of suspicion may be pointed at the following:

SMOKING

ALCOHOL

CHRONIC IRRITATION

Early oral cancer warning signals are:

* Swelling, lump or growth anywhere in or about the mouth

* White scaly patches inside the mouth



Dr. G. Steiner examines colleague Dr. W. Blaine for oral cancer.

- * Sores that don't heal
- * Numbness or pain anywhere in the mouth
- * Repeated bleeding in the mouth without apparent cause

Seldom does the dentist as a part of the medical team have an opportunity to render life-saving measures, and as part of the team, the dentist's responsibility is not ended until his patient with cancer is placed under definitive treatment by an oral surgeon, a general surgeon or tumor clinic group, as appropriate to the case.

The Alaska State Dental Society accepts the challenge of early oral cancer detection!

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McKinley, Ira Blake
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Fair, Calvin M.
P. O. Box 369
Soldotna, Alaska 99669

Fellman, Dr.
Adak, Alaska

1. Burket, L.W.: Oral Medicine, eds 5, Phil 1965 J.B. Lippincott Co, p 538

2. Burket, L.W.: Oral Medicine, eds 5, Phil 1965 J.B. Lippincott Co, p 539

3. Mitchell, D.F.: Recent Development and Advances in Oral Diagnosis, PDM, January 1965 p. 27-29.

EXPANDING HORIZONS FOR DENTAL EDUCATION

During 1968, the American Fund for Dental Education added considerable dimension to the importance of its programs.

The Fund has moved ahead in a number of areas vital to dental education. A major obstacle to producing an adequate supply of dental personnel has been the lack of sufficient numbers of qualified faculty. Succinctly stated, dental teachers are in "short supply". To this end, the AFDE has added the payment of full tuition to its dental teacher training fellowships. The \$6,000 base stipend and a \$500 allowance for each dependent, coupled with tuition, makes the AFDE fellowships competitive for the first time with available research fellowships. Bearing this out, the Fund had nearly 100 applicants for its 1968-69 fellowships and expects an equal number this year.

In a few years, the AFDE has more than doubled the number of its auxiliary scholarships. Last year, 12 \$800 dental hygiene scholarships, 35 \$200 dental assistant scholarships and 18 \$500-to-\$650 dental laboratory technology scholarships were awarded through the Fund.

In addition to the sizable challenge grant from the W. K. Kellogg Foundation, two dental industrialists have utilized the AFDE as a means to help dentistry. William Getz has pledged \$206,325 to go to a number of dental schools and to the ADA Research and Education Foundation. George Whiteley, has set up a \$100,000 trust to create a dental teacher training fellowship in memory of his father.

The AFDE continues to be of major financial assistance to the American Association of Dental Schools, giving it money for its general budget and for individual projects. The AFDE regularly funds such valuable endeavors as the Conference for Teachers of Dental Materials. Recently, it made its ninth \$1,000 across-the-board unrestricted grant to each of the dental schools.

Through all these activities, the American Fund for Dental Education is attempting to improve the excellence of our dental school system. Each year in May, the Fund seeks contributions from all people within the dental profession to show major industry and foundations that Dentistry itself is solidly in back of the Fund's efforts. No matter the size of your

**May is
AFDE Month
KEEP DENTISTRY
MOVING UP**



contribution, each dentist and his auxiliaries are urged to contribute during AFDE Month. Help the dental schools realistically meet the ever-growing challenge to maintain a dentally healthy America.

SOCIETY'S INSURANCE COMMITTEE

The committee is thoroughly studying the various features and implications of existing dental insurance plans. They are also making projections of future programs in an attempt to simplify and enhance relations between dentist, carrier and patient. All members will be advised of the committee's progress and will be asked to provide data and other assistance from their own experience. It is important and meaningful work which will benefit the profession in many ways, which all members will find interesting and educational.



George W. Crane, Ph.D., M.D.

ANNUAL MEETING ALASKA DENTAL SOCIETY

June 2, 3, 4, 1969

George W. Crane, Ph.D., M.D., will be the featured clinician at our 1969 annual meeting, announced Dr. Luther Paine, Clinic Chairman. Dr. Crane is familiar to most of us through his articles in periodicals and syndicated newspaper

columns. He is a very popular lecturer and respected psychologist with a particular affection for the dental profession. Negotiations for his appearance began some two years ago, and we are fortunate to have him on our program.

Dr. Grant Overby, the Tacoman with some original concepts on splinting and immobilizing teeth promises a return visit to our program again this year.

The business portion of the meeting can be appreciably shortened and made more productive with good background material. Hopefully, committee reports will be carefully and completely prepared beforehand.

ANYONE FOR NOME?

Joe Cumming recently returned from Nome where he provided some much needed dentistry and had a few salient comments regarding the potential of that city. A facility consisting of two rooms equipped with 2 units, 2 x-ray machines, dark room, etc., is set up on the lower floor of the hospital and is available on a rental or other basis to a dentist interested in establishing there. The general economy is stable, unemployment ratio of potential patients is low and the future looks very promising with the offshore developments in the area. Joe says a dentist would be busy with the backlog of needed work for some time and could establish with a very reasonable amount of money because of the existing facility.



George Ahgupuk

THE ALASKA AREA NATIVE HEALTH SERVICE DENTAL PROGRAM

By John E. Butts, D.M.D.

Alaska Area Native Health Service

U.S. Public Health Service, Anchorage

Background:

The goal of the Alaska Native Health Service Dental Program is to elevate the oral health of the Alaska Native population to the highest possible level. This goal is in keeping with that of the health program as a whole.

There is far more dental disease among the nearly 50,000 Alaska Native persons who qualify for dental care than can possibly be treated by the manpower available to the Service, either through direct services or through contracts with private practitioners in Alaska. This is especially true because correction of gross dental defects and the rehabilitation of long standing dental disease and disease sequelae requires great amounts of time and other resources related to dental care; therefore, the most successful efforts are those directed toward prevention and early treatment of dental diseases. This requires that our primary efforts be directed toward the young. Great strides have been made in our efforts to improve the dental health of these people by using this approach. The system in use by the Dental Branch of the Alaska Native Health Service is one based on proved public health principles.

Since it is obvious that our staff of 20 dental officers is inadequate to meet the total dental needs of the people, a system of priorities exists to guide health personnel in the provision of services which meet our primary obligation, namely, to utilize our resources in the manner which will have the greatest beneficial effect on the most people for the longest period of time. Therefore, while emergency services are always available to persons of any age, our primary program is directed toward prevention of dental diseases and incremental care for children. Incremental care means that all needs of the youngest group available are met within the limits of manpower and funds available. The next year, the same group receives attention so that their new increment of disease is cared for. Then efforts are directed toward the new youngest group. Over a period of years, then, a generation of persons relatively free of the ravages of dental

disease will mature. These principles, incidently, are exactly in line with recommendations of the ADA Council on Dental Health "Guidelines for Dental Programs Under Title XIX", as outlined in the Journal of the American Dental Association in January, 1969. This approach is complicated in the Alaska Native population by the fact that 58% of the population is 19 years of age, or younger, and the birth rate is over twice that of the general population of the U.S.; 38.9/1000 for the Alaska Native compared to 18.5/1000 for the U.S. as a whole.

Preventive Program:

For a number of years, it has been the policy of both the Indian Health Service and the Alaska Area to provide controlled fluoridation in all community water supplies built under PL 86-121, in which it is engineeringly feasible to do so. It is estimated that some 12,800 Native persons now are using fluoridated water. Also, a great number of communities are utilizing fluoride tablets supplied by our pharmacies. This is usually a joint effort with school personnel who graciously lend assistance in dispensing and assuring proper consumption of the tablets, normally at recess or lunch time.

It also is Indian Health Service and Alaska Area Policy that every dentulous person less than 18 years of age, who is seen in our clinics, will receive a topical application of fluoride every year. Some 12,449 such treatments were provided in Fiscal Year 1968. These treatments are an integral part of the aforementioned incremental care program for all children.

The Indian Health Service also conducts preventive orthodontic and periodontic programs, although corrective orthodontics is presently beyond the scope of our program.

Training:

The Alaska Area, in keeping with the role of the Public Health Service as a whole, is very

active in training of dental personnel. A rotating dental internship program was initiated at the Alaska Native Medical Center, Anchorage, Alaska, on July 1, 1966. The program trains two interns per year, at present, and has received accreditation by the Council on Dental Education of the American Dental Association. The United States Air Force is cooperating by providing the services of specialty consultants in Oral Surgery, Prosthodontics, and Periodontics from Elmendorf Air Force Base. Orthodontic consultation is provided by contract with a private practitioner in Anchorage. Every new dental officer receives, early in his first year in Service, a one-week course in efficient clinic management and proper utilization of dental assistants at the Alaska Native Hospital at Mt. Edgecumbe, Alaska.

A training course for dental assistants has also been conducted at Mt. Edgecumbe for many years to train Indian and Alaska Native girls for careers with the Native Health Service. In 1967 this course was lengthened from four months to ten months to allow for accreditation by the Council on Dental Education of the ADA. Seven girls graduated from this new course on February 7, 1969, and five have been employed by the Alaska Area and the Aberdeen, South Dakota, Area of the Indian Health Service.

In addition, an average of 4 to 5 officers are offered short course training each year in such subjects as Oral Surgery, Preventive Dentistry, or Oral Diagnosis — usually at Walter Reed Army Hospital, or at some other military hospital.

Staff:

Officers are stationed permanently at Anchorage, Barrow, Bethel, Fairbanks, Juneau, Kanakanak, Ketchikan, Kotzebue, Mt. Edgecumbe, and Nome. While these locations are "home base" for our staff of 20 clinical dental officers, every dentist spends time "in the bush"

some as much as 9 to 10 months per year. A continually expanding effort is being exerted to

bring modern dentistry to Native villages throughout the State. As evidence of the success of this effort, it is anticipated that some 160 villages and towns will be visited on an itinerant basis in this Fiscal Year (1969) compared to 78 villages in Fiscal Year 1966.

Our staff of dentists is also bolstered by contractual agreements with a number of private practitioners. This program has expanded from 10 contracts in 1966 to the present level of 17. Further success in this aspect of the program is hampered by budgetary limitations and, with notable exceptions, a general reluctance on the part of private practitioners to visit "bush" villages at our request on a regular schedule. Some 10–20 villages will receive care under contract.

Present Status:

It is obvious to anyone who knows Alaska that one primary deterrent in accomplishing our mission is the tremendous difficulty associated with travel and transporting sophisticated portable dental equipment to enable us to offer modern, painless dental treatment under relatively primitive conditions.

With this in mind, it can easily be appreciated that there is a discrepancy in levels of dental health to be encountered in various parts of the State. Every year, however, we are able to bring more school populations to "maintenance level" and thereby permit furtherance of our mission. Plans are being formulated to provide routine care to adults within the next few years, where our resources permit.

It is perfectly obvious that we have a tremendous job yet to do — that we are far from reaching our goals — but we count with pride the dedication of the many dentists and dental assistants who have contributed to raising the dental health of the Native people. This pride can be shared by the dental personnel of the Service and those private practitioners who have joined us through the contract program.



COBALT COMES TO ALASKA

By Shirley Cannon

Public Information Specialist

Washington/Alaska Regional Medical Program

The future for Alaskan cancer patients looks brighter this year. Thanks to dedicated people of this state who supported the Alaska Cobalt Center construction and financial drive and to the

Washington/Alaska Regional Medical Program who purchased the cobalt unit.

The cobalt drive, conducted during the last 12 months, demonstrated that Alaskans have a



Peter Wootton, radiation physicist, University of Washington, explains Alaska's first cobalt unit to (from left) Mary Lou Armitage, Anchorage Nurses Assn.; Elsie Blue, Alaska Hospital Assn.; Dr. George Wagnon, U.S.P.H.S., and Sister Agnes, Providence Hospital.

strong concern for increased medical services in their state and that they are willing to volunteer their time, money and talents for patient care projects. It also represents a unique example of federal and private forces working together for a common cause with the full utilization of local resources.

With the Anchorage medical community as the backbone of financial support, the \$75,000 facility adjoining Providence Hospital in Anchorage was funded through contributions from private citizens, memorials to cancer victims, clubs, organizations and firms. Virtually every medical and paramedical group in Alaska aided in the cobalt drive and pledged continued support to the center.

The Theratron 80 cobalt unit was purchased by a \$56,000 grant from the Washington/Alaska Regional Medical Program, a division of the Department of Health, Education and Welfare, which aids medical communities in increasing patient care services by fostering better utilization of manpower and resources. The local RMP, which also provides opportunities in continuing medical education established the first state-wide medical library in Alaska with the Public Health Service.

An estimated \$11,000 worth of labor and building materials were donated by local trade unions and businesses. Architectural services totaling \$7,500 were given free of charge and construction was done at cost.

Fund raising was done by door-to-door canvas, payroll deductions, city-wide raffle and dance, bake sales and by all other assorted projects.

Those who worked so hard to bring cobalt to Alaska were recognized at the official dedication ceremonies March 14 at Providence Hospital which featured a luncheon and public open house. Highlight of the ceremonies was presentation of a plaque in memory of Levi Browning, M.D., which was placed on the door of the cobalt center. Dr. Browning, who died of lung cancer last summer, was a former commissioner of health and welfare in Alaska and first deputy director of the Regional Medical Program in Alaska during which time he campaigned for local and federal support of cobalt for Alaska.

William Ross, M.D. who directs the national cancer control program for HEW was one of the luncheon speakers and conveyed his compliments and those from other HEW officials to the



Frank Highsmith, carpenter, was a volunteer laborer on the project.



"Hans," dachshund belonging to Ernie Matz, who supervised the construction of the cobalt center, never missed a day on the job. He also volunteered his time.



Ernie Matz, Western Construction; and James L. Sargent and Harold Johnson, local plumbers, were among local construction workers who volunteered labor for Alaska's first cobalt center.

Alaskan people for their fine achievement as an outstanding example of local initiative and leadership.

Besides representing an accomplishment for the fund-raisers, cobalt in Alaska means financial and personal benefit to cancer victims. Cancer patients will be able to remain with or near their families and jobs while receiving treatment, thus eliminating costly trips to the "outside" several times a year. Last year some 100 cancer patients had to travel to the "lower 48" for treatment according to records from the American Cancer Society, Alaska Division, and it is estimated that there were at least 200 others who sought cancer therapy "outside" on their own.

Other good news for cancer patients is that the Alaska Cobalt Center will serve all Alaskans regardless of their ability to pay. Officials at Elmendorf and Fort Richardson have asked permission from the military for their cancer patients to be treated in Alaska rather than sending them to a military facility in the "lower 48".

Since the cobalt facility is virtually paid for, the center can begin operation on a non-profit basis. Patients will not have to amortize the center as is often the case. The patient treatment fee of \$25.00 which was set after much study of

costs throughout the nation, will be used for operational expenses and professional fees only. Any profit generated will be used to further the state-wide cancer control program through public and professional educational programs on cancer. Extra funds may also be used to purchase new equipment, such as a cobalt source which will be needed in five years.

Alaskan physicians have known for many years that the one important modality of therapy not available in Alaska was that of high energy radiation therapy for cancer, but the need for this was even greater than anticipated. By the end of February, the first month of operation, the load was expected to be three or four patients, instead there were seven patients being treated by the cobalt center.

Besides being an important therapeutic tool, the super-voltage unit in Alaska will stimulate interest in cancer detection and therapy, and will strengthen the position to those who have been encouraging the improved data gathering and follow-up of cancer with tumor registries and associated programs. With this new and more effective cancer treatment facility, communication and patient referral within Alaska should be greatly improved.



Gene Moe, cement finisher, and Ernie Matz embed the cobalt unit in concrete, one of the final jobs in construction of the center.

A CLINIC TO TYONEK or SOCIALISM REVISITED October 17-18, 1968

By Milo H. Fritz, M.D.

Recently, I had the honor of being retained as ophthalmologist and otolaryngologist for some of the oldest families in the country. In fact, they were here approximately three thousand years before the Mayflower reached the shores of North America. I refer, of course, to the people of Tyonek.

Late in August 1968, my office received a call from the Tyonek Development Corporation asking if I would see a young mother and her infant because of "an infection". My wife and I have been long interested in the problems of the Native people of Alaska and sensed that it would be possible for us again to become involved in the health problems of the Tyonek people. I had not heard from them for the past few years. We told the secretary of the Tyonek Corporation to have the young mother and her infant come to the office.

The problem evolved around a superficial cervical lymph node that had become enlarged because of an infected insect bite in the patient's scalp. We prescribed the necessary simple medications, assured the mother as to the cause of the "lump" on the baby's neck, sent her away with the infant happy. We felt that the matter would end here.

On October 3rd, a particularly hectic day of moving and settling our new house and office, we received another call from the Tyonek Development Corporation. The Village Council in Tyonek, 60 miles from Anchorage, had asked that I come over to the village in order to examine the eyes and ears, noses and throats of the inhabitants, supplying glasses and hearing aids, if such were required. I was immensely pleased and subsequently found out that the little episode mentioned above reawakened the memories of the people of Tyonek concerning what we had done for them years ago when they were in abject poverty with the indescribably poor health conditions that existed in those days. Although the problems of moving and settling a new house and finding a new office seemed overwhelming, we decided to hold the clinic on October 17-18. Had the Tyonek people retained

any other EENT man, I would have died of mortification, depression and plain jealousy.

I contacted my good friend, Mr. John Spahn, Guild Optician of Anchorage, and asked him if he would care to go along to do the opticianry and supply hearing aids, if indeed such were required. As usual, he modified his own plans in order to participate in this unplanned clinic in addition to itinerant work remaining in 1968.

The request from the Tyonek people was the first that a Native group had ever made of me to help them as a private physician. I have gone to many villages, settlements and small cities in the course of twenty-eight years of EENT work in Alaska. But all of the clinics, except this, were instigated by or arranged for through federal or state agencies or some enlightened non-native individual, an itinerant nurse, a white school teacher, a particularly enlightened trader and his wife or an FAA official.

Eighteen years ago, a few days before the end of the fiscal year, the Department of Health asked if I could do twenty-two T&As on Tyonek youngsters. If this were not accomplished, they said, within the three or four days remaining till the end of June, the money would lapse because it had not been encumbered, as the bureaucratic saying goes, by the end of the fiscal year. Accordingly the youngsters were brought by boat from Tyonek, and with the good and generous help of Dr. A. S. Walkowski of Anchorage, who saw that I could not do twenty-two T&As in one day unaided, we met the deadline and the operations were successfully completed.

From that day until about four years ago, I went to Tyonek frequently in my own plane. Most of the time, I went at the request of various individuals in the village who knew me and whose chronic ear troubles and eye diseases made occasional visits and medical care a necessity.

On one occasion, Dr. Robert Wilkins of Anchorage went with me in order to do general physicals and school physical examinations on the youngsters while I did eye examinations, supplied



Tyonek Village, June 29, 1965

eye glasses and hearing aids, which we had received gratis from the Zenith Corporation.

From those seemingly remote times until about four years ago, I also sent medicines through the good offices of pilots who served Tyonek, relying upon the diagnoses that I had previously made on the patients who usually wrote for medications.

In those days, they could not afford the medicines, and they were supplied from the drug samples that I received, or on occasion we would purchase them ourselves and send them on, realizing the importance of getting the treatment started immediately. Often, there was no money for the purchase anyway and delaying treatment in such severe conditions as iritis could, as has so

often been the case elsewhere in Alaska, result in irreparable damage to the affected eye.

Accordingly, we packed up our four or five hundred pounds of itinerant eye and ear, nose and throat diagnostic gear in the familiar green ammunition boxes, plus the heavy iron and steel stand used to hold the refracting unit. On a gorgeous clear, blue and gold morning of the 17th, all of the stuff was loaded into my old friend, Oren Hudson's Doyme conversion of a Cessna 172 with a hundred and eighty horse power Lycoming engine in it. Not only did Oren manage to lift all of our stuff, which seemed impossible, but when he arrived at the strip at Tyonek, he also had an ironworker aboard with an additional one hundred pounds of his own gear with him!



Tyonek Village, September 15, 1968

My wife Betsy, John Spahn and I were taken over by Mr. Mass in one of George Spernak's Cessna 180's. The flight was far too short since it was a perfect day with almost no turbulence.

The first surprise was the airstrip at Tyonek. Not only was it double its former length, but also had daylight controlled runway lights, had been widened and the menacing acreage of tree stumps that constituted a mental hazard at the east end of the runway had been removed.

The site of the village, of course, jutting out into Cook Inlet, was as beautiful as only autumn could render it. But of the old log and frame hovels that used to constitute the village, there was only a small trace. This consisted of one

small cabin, a cache and an outhouse, perhaps serving to remind the People of what they used to put up with.

Now dominating the whole scene is a brightly painted immaculate Russian Orthodox Church with three Russian Orthodox crosses on its roof, a different cross at each of the three different levels of the roof. Spreading around it are beautifully landscaped hillocks and small valleys where modern prefabricated houses have been constructed, most with concrete basements and a suitably overhanging roof all around to protect the buildings against wind and weather. Sidewalks have been started and the grading is now complete for paving, not only the streets, but also the runway.

There is a fire department, a small dispensary, a city hall, a larger supermarket type store, a good road net and every house has a view of the mountains, the forests, the lakes and the Inlet.

The village is very clean and they have garbage collection from the well constructed garbage racks before every house three times a week.

Mr. Mass deposited the three of us on the runway and we waited while Oren came in with his heavy load, landing in the usual three hundred yards, turning around and helping us get the stuff onto the truck which Mr. Emil McCord, Secretary of the Village Council, had waiting for us. When we arrived at the dispensary building, Dr. Hanks of Anchorage and his nurse, Miss Fuller, were already working in the dental office. We moved in on them and with good nature they let us re-arrange things in the kitchen and elsewhere in the building, so I would have a twenty foot distance between my patient's eyes and the screen I had to mount on the wall. Room was also made for John and his spectacle frames and a place was found for my wife and her charts and other administrative supplies.

We had our meals with Mr. and Mrs. Tennison. He had been a patient previously in surgery and both of them had been office patients. He has been in charge of various construction projects in the village. He lives in a typical village house overlooking the Inlet surrounded by a grove of birches and flowering plants.

Mrs. Tennison had us in for meals which were designed more for hyper-thyroid laborers than they were for aging physicians. All the will power in the world was no proof against her delicious food and we ate far more than was absolutely necessary to keep soul and body together. Several men in construction work ate with us and the meals were a pleasant relief from the medical chores.

With their new found wealth, one might suspect that there would be disproportionate accent on clothing, automobiles and other so called status symbols. But, as far as I could see, the transportation consisted mostly of four wheeled drive jeeps or pickup trucks. None of these required license plates since they are not being operated on state roads. The men all had jobs, usually giving their occupation as laborer, heavy-equipment operator or maintenance man.

The principal of the school also visited us while we were working. He is interested in the

health of the village children and in learning how to test and record visual acuity and do simple audiometry in preparation for future visits. He acts more or less as a village health aide and is respected, not only for his educational efforts, but also for his work in the health field.

Dr. Hanks was invited as a private dentist and he comes over as often as the demand for his work requires. He seems genuinely interested in the dental welfare of the people and judging from the way that the youngsters and grown folks respond to him, he is a respected and popular dentist.

In the two days that we spent there, we saw forty-three patients: eight women, nineteen men and sixteen children. We did thirty-five eye examinations including twenty-three refractions under cycloplegia, eleven manifest refractions. I removed one chalazion. I did brief ENT examination on all patients irrespective of the reason for their call. Twenty-two of them came specifically because of ear, nose and throat complaints. One lady, upon whom I had done several mastoid operations years ago, needs a hearing aid on her operated ear, the better ear continuing to discharge, making the use of a hearing aid impossible. One young man who has profound hearing loss of unknown cause benefited from a new type of hearing aid. Thirteen pairs of single vision glasses were prescribed, five pairs of bifocals were needed and one artificial eye is being fabricated to take the place of one that is now etched and is in a poor position in the orbit.

Twenty-nine operations were scheduled to be done in the Providence Hospital in Anchorage, mostly tonsillectomies or T&As. Trans-tympanic tubes and irradiation of the nasopharynx will be done for one nine-year-old who is profoundly deaf because of chronic serous otitis. Optical iridectomy was recommended on a one eyed patient who was on the verge of having total synechia in his remaining eye. A cataract extraction involving both eyes was also recommended and there was one eighty-three year old patriarch who also requires cataract surgery.

At 4:30 on the second day, we finished our last case, struck our gear and Mr. McCord was on hand with his truck to take us to the airfield. My wife and John, plus half our baggage were taken back in the 180 with Mr. Mass while I chose to fly back with the heavy equipment with my old and trusted friend Oren Hudson. Years ago, he had saved my airplane by flying it out of a pond



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WHAT YOU SHOULD KNOW ABOUT CHROMOSOME ANALYSIS

By Peter T. Rowley, M. D.

Division of Medical Genetics, Department of Medicine,
Stanford University School of Medicine, Palo Alto, California

The most important new tool in human genetics of the past decade is chromosome analysis. It has brought new methods for diagnosis and new insights into the causation of disease. Many physicians find chromosomes and their abnormalities confusing. My purpose is to make clear what every physician needs to know to use this new tool of human genetics.

How chromosomes are analysed

Either blood or skin may be studied; in most cases, blood alone suffices. The steps in the

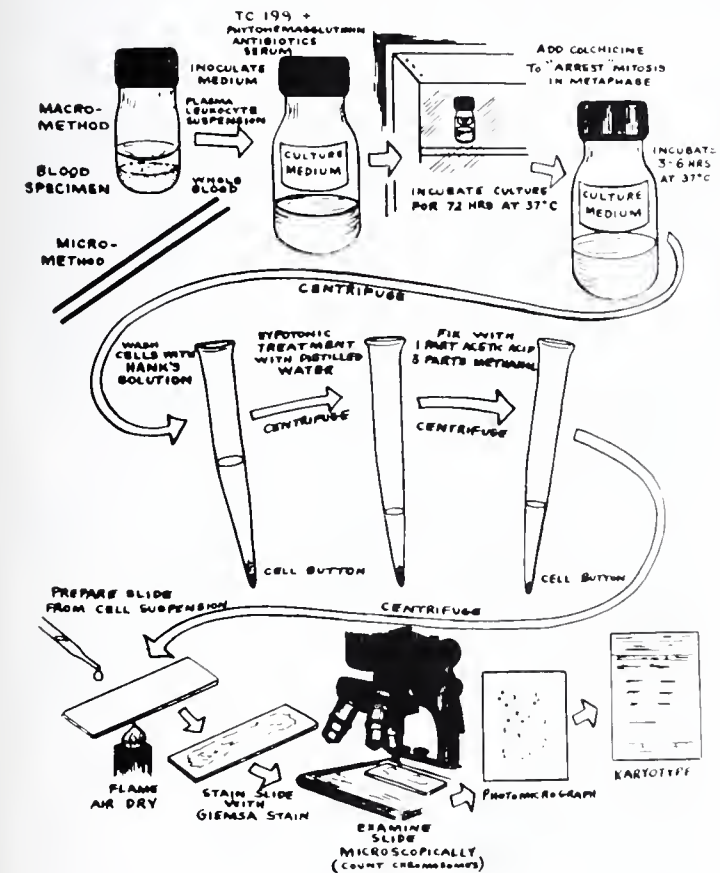


Fig. 1.

The steps in human chromosome analysis.

analysis of chromosomes from blood are shown in Figure 1. To the blood specimen is added a bean extract called phytohemagglutinin to facilitate removal of red cells and to stimulate the lymphocytes to divide. Nutrients are added and the sample is placed at 37°C. After 3 days mitoses

are numerous. At that time colchicine is added to arrest mitosis in metaphase in which the chromosomes are sufficiently condensed to be individually recognizable. Hypotonic saline is added to swell the cells, thus spreading the chromosomes apart. The cells are smeared and



Fig. 2.

Chromosomes from a human lymphocyte in metaphase.

then stained with a DNA-specific stain, as shown in Figure 2. The number of chromosomes can be easily counted. For more detailed analysis it is convenient to photograph the cell, cut out the individual chromosomes and arrange them as shown diagrammatically in Figure 3.

Chromosomes may be divided into sex

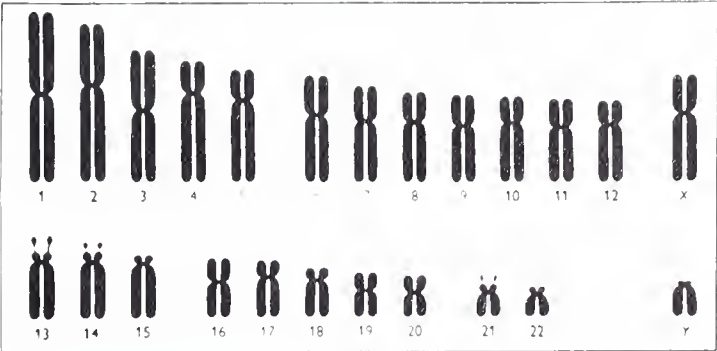


Fig. 3.

The Denver classification of human chromosomes.



Fig. 4.
The karyotype of a normal female.

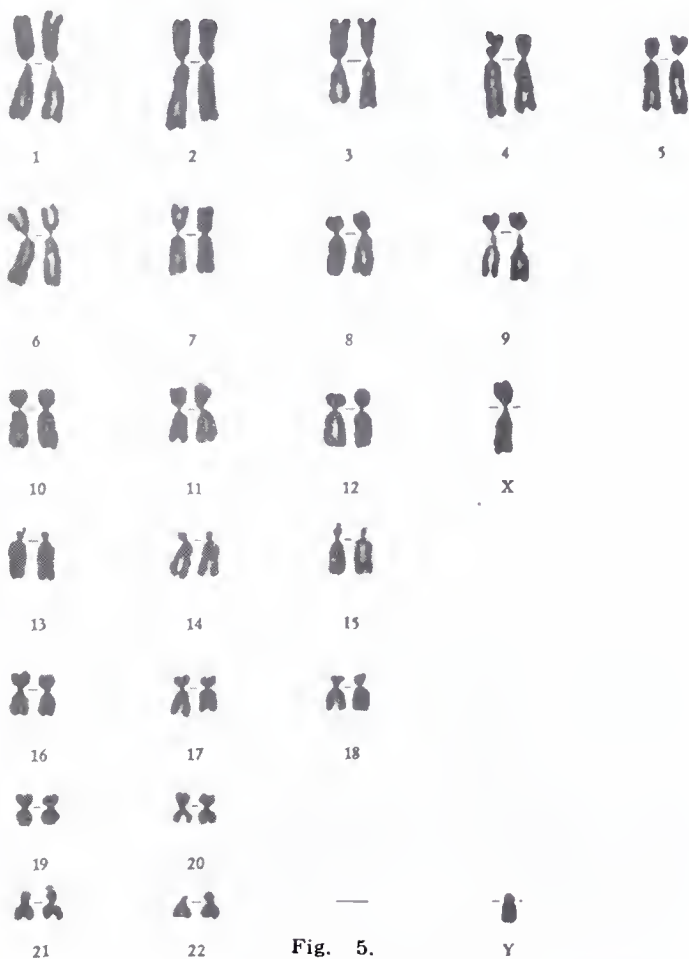


Fig. 5.
The karyotype of a normal male.

chromosomes and non-sex chromosomes or autosomes. The autosomes are numbered in order of decreasing length. They are also divided into groups according to similarities in shape.

A	1 — 3
B	4, 5
C	6 — 12
D	13— 15
E	16— 18
F	19, 20
G	21, 22

Because chromosomes in some groups are often difficult to distinguish, the group classification by letter is convenient.

Figure 4 shows the chromosomes of a normal female. The chromosomes of an individual arranged thus in order of decreasing length is called the karyotype. Normal human beings have 46 chromosomes (44 autosomes and 2 sex chromosomes). The normal female has two X chromosomes. The X chromosome is not easily distinguished from others in the C groups. Figure 5 shows the chromosomes of a normal male. The normal male also has 44 autosomes and 2 sex chromosomes, but the 2 sex chromosomes consist of one X and one Y chromosome. The Y is one

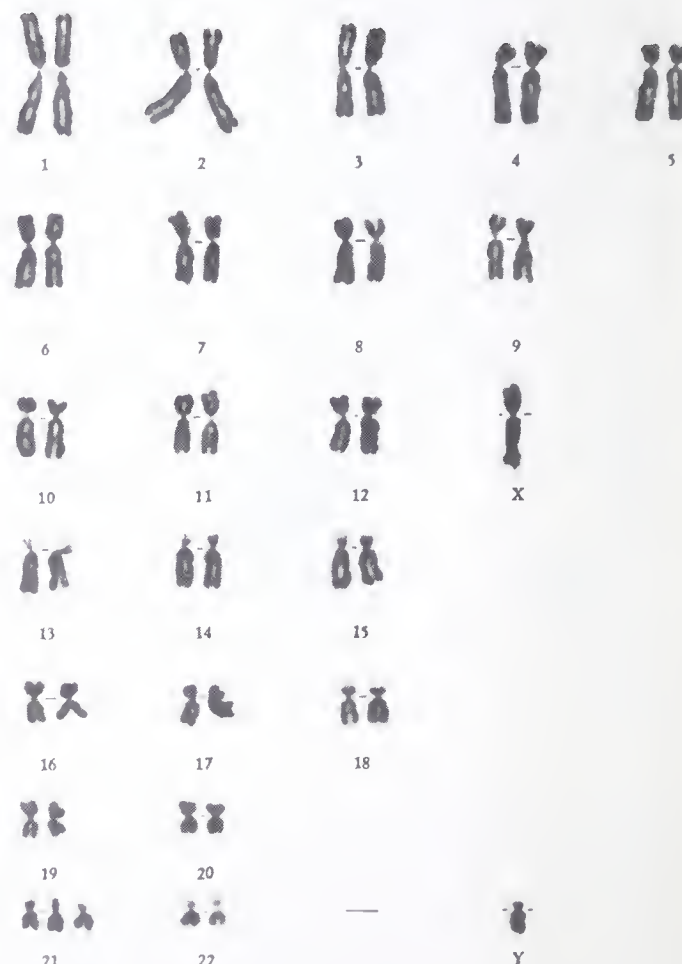


Fig. 6.
The karyotype in Down's syndrome: trisomy 21 type.

of the smallest chromosomes and has a shape distinguishably different from all the others.

Autosomal abnormalities

The major types of autosomal abnormalities are defined in Table 1.

“-ploidy” refers to the number of chromosome sets. The normal number, 46, is a diploid set. A triploid set contains 69. Triploidy is found primarily in abortion material. “-somy” refers to single chromosomes. “Trisomy” means that one chromosome is represented three times instead of twice. Due to the extra chromosome, the total number is 47 instead of 46. The commonest example of trisomy is trisomy 21. The karyotype is shown in Figure 6. Individuals with this karyotype have Down’s syndrome (mongolism). The clinical picture is familiar . . . mental retardation, retarded growth, small head with short AP diameter, slanting eyes with epicanthal folds, chronic sinusitis, small oral cavity, short fifth fingers, characteristic palm prints, often congenital heart disease. Occasionally, an individual with Down’s

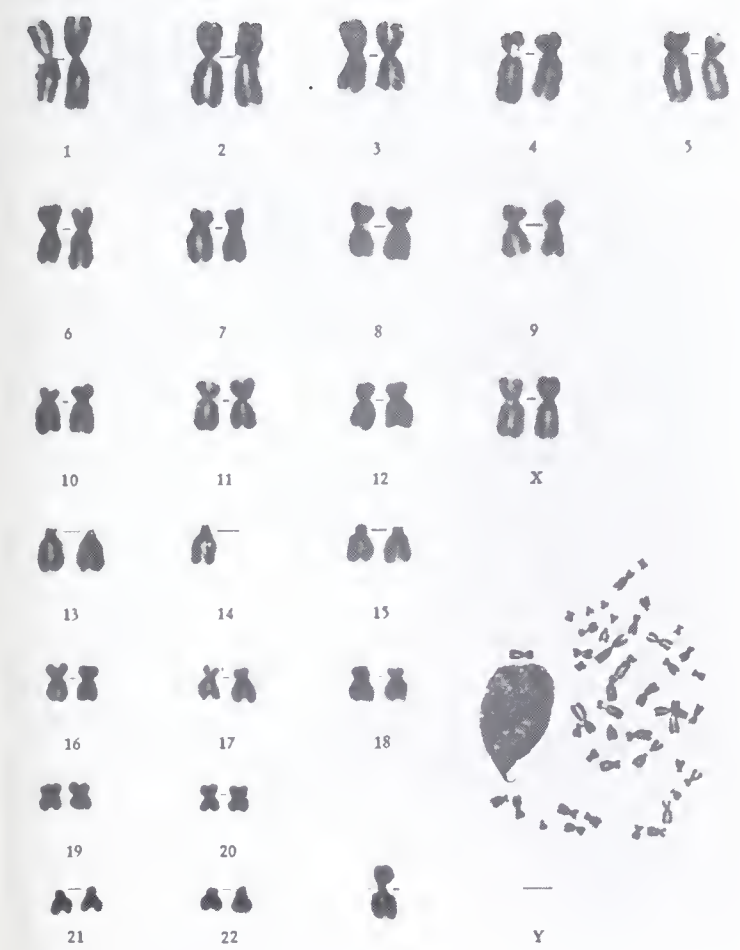


Fig. 7.

The karyotype in Down’s syndrome: translocation type. The unmarked chromosome in the bottom row is the result of the attachment of a no. 21 to a no. 14 chromosome.

TABLE I
TYPES OF AUTOSOMAL ABNORMALITIES

- 1. Number
“-ploidy” refers to number of chromosome sets
triploidy = 46 plus 23 = 69 chromosomes
“-somy” refers to single chromosomes
trisomy = 46 plus 1 = 47
- 2. Structure
“Deletion” refers to a chromosome missing in part.
“Translocation” refers to a chromosome to which has been attached part of another chromosome.

syndrome has, not trisomy 21, but the karyotype shown in Figure 7. Here the chromosomal material of no. 21 is represented three times, as in trisomy 21, but the extra 21 material is attached to another chromosome. The total number of chromosomes is only 46, but one of them is abnormally long due to the extra no. 21 material. The attachment of one chromosome to another is called a translocation.

It is important to recognize which mongols are translocation mongols because the risk of recurrence among siblings may be much higher than in the case of the trisomic mongol. The mother of a trisomic mongol usually has not more than a 3% chance of bearing a mongol on a subsequent pregnancy. However, the mother of a translocation mongol, who also has the translocation herself, has a 33% chance of having a mongol with each pregnancy. Translocations are especially common among the mothers of mongols who are young. Any young woman with one mongol child wanting more children should have a chromosome analysis to determine whether or not she falls in this high risk group.

The final common type of autosomal abnormality is the deletion. A deleted chromosome 21 has been found in over 85% of cases of chronic myelogenous leukemia. Figure 8 shows the pair of 21st chromosomes from 6 such patients. Notice that one member of each pair has foreshortened long arms. This chromosome has been called the Philadelphia chromosome after



Fig. 8.

The 21st chromosome pair in six patients with chronic myelogenous leukemia. The right-hand chromosome of each pair is smaller due to a deletion and is called a Philadelphia chromosome.

the city in which it was first described. It may be present before the white cell count rises.

Sex Chromosome abnormalities

The commonest sex chromosome abnormalities are Klinefelter's syndrome and Turner's syndrome. Figure 9 illustrates the karyotype of a patient with Klinefelter's syndrome. There is not only one Y and one X, as in the normal male, but a second X chromosome as well. Figure 10 shows a patient with Klinefelter's syndrome. The only constant features are small testes with deficient sperm production. The other features are variable. Present in this patient are long legs, myopia, and psychiatric problems. Gynecomastia and mental retardation are also very common. These patients are generally sterile. Their adjustment depends on their mental capacity and psychiatric adjustment, both of which may be normal. Some patients with Klinefelter's syndrome have 3 or 4 X chromosomes rather than 2. These patients are more likely to be mentally retarded and to have skeletal malformations than those with only two X chromosomes.

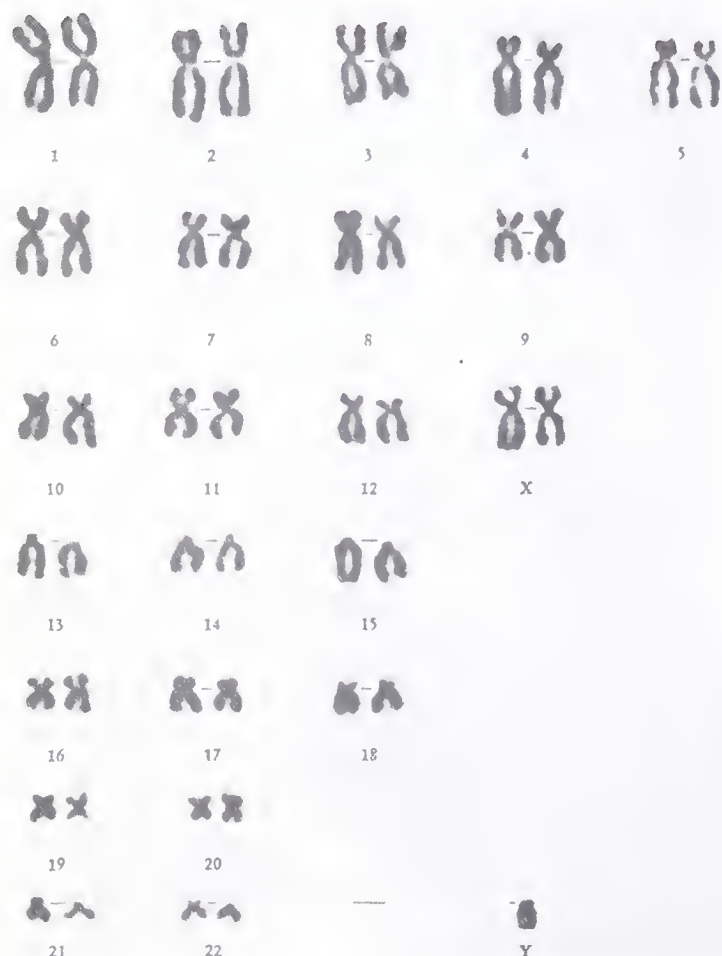


Fig. 9.

The karyotype in Klinefelter's syndrome.



Fig. 10.

A patient with Klinefelter's syndrome.

Figure 11 shows the karyotype of a patient with Turner's syndrome of gonadal dysgenesis. Note that there is only one sex chromosome, an X. The only constant physical finding is short stature. Other findings are variable. These include a broad, shallow chest, a webbed neck (present in this patient), a short 4th finger, and congenital heart disease. Turner's syndrome may present at birth with lymphedema, before puberty with growth retardation, or in adult life with primary amenorrhea. Mental retardation is not usually present. These patients generally have only rudimentary ovaries and are sterile. The prognosis for life is dependent on the presence or absence of congenital heart disease.

Sex chromatin

A useful aid in the diagnosis of sex chromosome abnormalities is the determination of sex chromatin. The sex chromatin body is a structure in the nucleus of all body cells and is

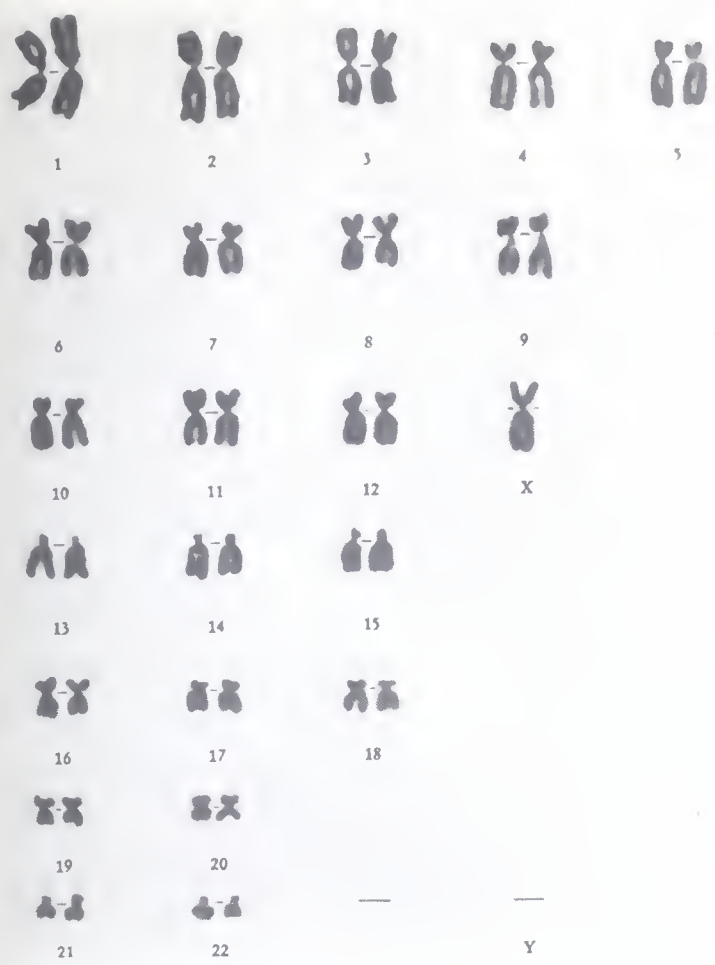


Fig. 11.
The karyotype of Turner's syndrome.

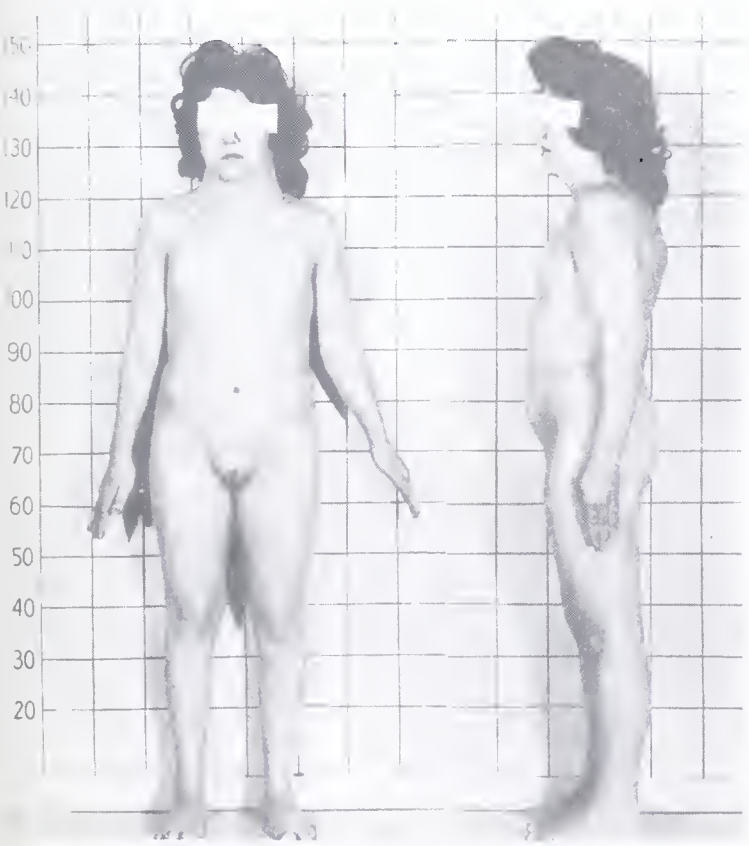


Fig. 12.
A patient with Turner's syndrome.

believed to represent an inactive X chromosome. The standard technique to determine whether it is present is to scrape the buccal mucosa, smear the cells obtained on a slide, and stain with Giemsa. One then looks for a dense, compact mass of material adjacent to the nuclear membrane. This is called sex chromatin body or Barr Body. The number of sex chromatin bodies is one less than the number of X chromosomes. Thus a normal woman with 2 X chromosomes has 1 sex chromatin body. A normal male with 1 X has no sex chromatin body. A Klinefelter's with 2 Xs will have a chromatin body, differentiating him from a normal male. A Turner's syndrome with 1 X will have no chromatin body, differentiating her from a normal female.



Fig. 13.
The compact mass on the nuclear membrane is called the sex chromatin or Barr body.

ACKNOWLEDGMENTS

The author thanks Lt. Cmdr. T. R. Birdwell, U.S. Naval Hospital, San Diego, for Figure 1; Dr. Luigi Luzzatti, Department of Pediatrics, Stanford University School of Medicine, Pal Alto, California, for Figures 2, 4, 5, 6, 7, 9, 11, and 13, and the Williams & Wilkins Co., Baltimore, Md., for Figure 10, taken from Medical Cytogenetics, by Mihaly Bartalos and Theodore A. Baramki, 1967.

ADENOCARCINOMA OF THE FALLOPIAN TUBE WITH LATERAL METASTASIS TO THE NECK

Clinical Brief

By James A. Wilson, M.D.

This is a single case report of a 47-year-old white woman, No. 68-6113, with an unusual mass in the left lateral aspect of her neck. The case is being presented because we are unable to find any similar case in the medical literature.

The patient was initially seen by us in May of 1968 with a history of sudden awareness of a mass present at the left lateral base of her left neck. The mass was non-tender and appeared without prior signs of infection or inflammation. She was not aware of any thyroid problem, but was concerned because of her history of previous malignancy.

In 1962 the patient underwent an exploratory laparotomy for a mass in the left inguinal area that was found to be an adenoacanthoma of the left fallopian tube. A total hysterectomy, bilateral oophorectomy, and salpingectomy was done at that time and she was given post-operative irradiation to the pelvic area. At that time the pathology report was that of adenocarcinoma of the fallopian tube with metastatic adenocarcinoma to the anterior surface of the uterus and the pelvic retroperitoneal lymph nodes as well as ovarian endometriosis. The patient had been asymptomatic approximately six years without evidence of disease until she was seen by us to evaluate the problem with her neck. Physical examination showed a cooperative, moderately thin woman whose only complaints were relevant to a solitary, smooth, firm, 1x1½ inch mass that underlay the base of the left sternocleidomastoid muscle. The mass was discrete, firm and seemed on palpation to be separate from the sternocleidomastoid muscle. The thyroid was not enlarged to palpation, and there were no other significant findings relative to the above illness. Mirror examination of the larynx and the hypopharynx were negative. Chest roentgenograms were normal, with no evidence of hilar or superior mediastinal enlargement. Pre-operatively the mass was felt to represent an isolated node, possibly a primary lymphoma.

At surgery the mass proved to be a single, large lymph node, with other nodes palpable in the neck.

The pathologist's report was that of metastatic carcinoma of the cervical lymph gland.

We were able to get the original slides and compare them with the metastatic cancer present in this gland, and the metastatic tumor of the cervical lymph gland is the same as that seen in the original specimen. Therefore, this represents a late isolated metastasis to Virchow's Node at the left side of the neck six years after pelvic surgery for an adenocarcinoma of the fallopian tube.

In addition to the surgical excision of the mass, supervoltage x-ray to the supraclavicular region was given in the postoperative period to control any additional lymph node disease. Subsequent IV pyelogram, Barium enema, sigmoidoscopy, were negative as were later pelvic examinations. So far at least, the patient has no apparent intra-abdominal recurrence.

We were not aware of how unusual this case was until we looked for comparable cases. There are few reported in the English literature. In a report on necropsy diagnosis from the scalene lymph nodes by Agliozzo and Reingold, 20 genitourinary carcinomas metastasized to the scalene lymph nodes but these were from the urinary bladder and were highly malignant, or from the more malignant prostatic carcinomas. Another reference, *Malignant Disease of the Female Genital Tract* by Stanley Way, notes that lymph node metastases in the iliac and paraaortic nodes may be encountered with the small ovarian tumors and, at autopsy, involvement of such nodes is fairly common with the additional comment that blood-borne metastases to the lung and liver have been observed. Willis, in his *Textbook on Fallopian Tube Carcinoma*, relates one case with extensive lymph node spread to the inguinal, lumbar, iliac, coeliac, mediastinal and right and left cervical nodes in a case seen at necropsy, dying of abdominal disease.

In summary, this is a single case presentation of a patient who presented with a metastatic lymph node in the neck with the primary in the fallopian tube. The primary had been treated six years previously with surgery and irradiation. The lymph node represents an extension of cancer of the Virchow's Node on the left side. This is an unusual happening and the case is presented because of this.

Note: My appreciation is expressed to Dr. Donald Merkeley of Seattle, our pathologist, who reviewed the pathologic material.

MUKTUK MORSELS

NOME

Dr. Harold Bartko has resigned from the staff of the Maynard McDougall Memorial Hospital and has moved to Palmer. This again leaves Nome without a resident physician, although short-term coverage has been partially worked out. The proven inability of this missionary type hospital to attract and hold competent private medical practitioners in recent years suggests that a reasonable short-term solution would be to turn it over to the USPHS. The medical care of over 85% of the greater Nome population is controlled and financed by the USPHS in any case, which thus controls hospital admission policies and finances. As mentioned in *Alaska Medicine* December 1968, "The USPHS is an essential part of the Native health picture in the village at this time," and adequate staffing of a unified area-wide service should upgrade emergency medical care and preventive medicine programs.

FAIRBANKS

Dr. William Bugh has been appointed to the State Board of Medical Examiners by Governor Miller to succeed Dr. Raymond Evans. Dr. Bugh recently had his fifth child, a boy.

With the in-patient population over 70 in the present old community hospital, it is anticipated that the new 76 bed hospital now being planned will require an additional wing before it is ever completed. Apparently the hospital core capacity will be designed to include this eventuality. Of course the final design capacity will also be determined by USPHS plans for the nearby Tanana facility.

KODIAK

Dr. Mildred McMurtry delivered a son, her first. She plans to transfer her medical office to Seldovia when a replacement is found to take over her association-type general practice here.

The new 25 bed community hospital should open here in April. It will provide greatly expanded in-patient medical and surgical facilities capable of caring for much of the local patient load presently diverted to the Alaska Native Hospital (USPHS) in Anchorage.

SEWARD

Dr. Wiley Bland of North Carolina, most recently in Anchorage with the USPHS, has opened offices in general practice here.

PALMER

Dr. Vincent Hume has retired from medical practice here and moved to Portland, Oregon where he plans to enter an orthopedic residency.

ANCHORAGE

Dr. Robert Prouty of Cleveland, a Board Certified Internist, has joined the Doctors Clinic. Dr. Richard Curtis has also resumed his medical practice with the Doctors Clinic.

Dr. Martin Palmer, a Board Qualified Internist, is now in practice with the Anchorage Clinic.

Dr. Howard Romig had his 14th child, a daughter.

Dr. Edward Voke had his first son.

Dr. George Wichman has taken time from his busy practice to pass his Orthopedic Boards.

With both private hospitals and the USPHS hospital operating at close to capacity, the need for comprehensive planning for enlargement of community hospital facilities is becoming evident. In the meanwhile it is to be hoped that any unilateral expansion of the USPHS can be avoided in urban areas where private medical care is more efficient, and where duplicated and segregated facilities are so wasteful.

A three month cooperative course in coronary care nursing was recently completed under the guidance of Internists and Cardiologists from the four area hospitals in cooperation with The Alaska Heart Association.

Dr. Grace Thompson has resigned as regional health officer in Fairbanks and has joined Dr. Royce Morgan in his general practice.

Dr. John Aase will become the Alaska coordinator of the Alaska-Washington Regional Medical Program in September. He also hopes to practice Pediatrics on a part-time basis.

Bob Ogden has resigned from his part-time position as executive secretary of the RMP to devote his full time to Medical Society affairs.

JUNEAU

The Alaska Board of Medical Examiners is continuing the push for Licensing Law improvements, in particular the elimination of the citizenship requirement for those otherwise qualified (ECFMG), the elimination of the Basic Science Requirement for properly qualified M.D.s and the speeding up of temporary permits for those qualified who wish to serve short term Locum Tenens tours.

Dr. Stanley Ray had his second daughter, fourth child.

Dr. Henry Akiyama organized and taught Juneau's first one month long CCU course for over 20 nurses, in cooperation with the community hospital which now has a monitor unit installed and the Alaska Heart Association.

Further seminars and courses are planned in several Southeastern Alaska communities.

Ground-breaking for the 75 bed Greater Juneau Hospital is planned during 1969.

KETCHIKAN

Dr. Arthur Wilson, Jr. has just completed a one month South Pacific medical tour. Apparently he has decided to check on the source of the flu that has decimated Ketchikan in the past winter.

NEW YORK

The AMA plans its 118th Annual Convention here from July 13 through 17.

Classified Ad Section

This classified ad section is provided to give members an opportunity to make known their needs for medical and paramedical personnel. Please address all correspondence regarding insertions to: Robert G. Ogden, Executive Secretary, Alaska State Medical Association, 519 W. 8th Avenue, Anchorage, Alaska 99501.

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ALASKA MEDICINE



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Robert Mayokok was born in 1903 at Cape Prince of Wales, a tiny Eskimo village about 52 miles from East Cape, Siberia. His life story, appropriately titled "Fight for Survival" appeared in the August and September issues of Alaska Sportsman in 1955. His survival to manhood despite unbelievable hazards and hardships is wonder enough, while his development into an accomplished and nationally recognized artist is a tribute to the human spirit.

Mr. Mayokok has kindly permitted Alaska Medicine to reproduce some of his current works, including the striking cover on this June issue. His work is available through the Alaska Treasure Shop, 122 W. 11th Avenue, Anchorage, Alaska.

LETTERS TO THE EDITOR

Dear Sir:

Under the aegis of the Washington Alaska Regional Medical Program, we are attempting to study the patterns of medical care of children with cancer from the year 1963 through 1967. With such information, we hope to be able to find methods which may improve such care by working more closely with the child's primary physician. Although cancer in children is fortunately uncommon, the prolongation of active life and occasional hopeful cures have lead to increasingly complex provision of care.

With the mobility of our American people we are experiencing some problems in locating these children. The program is directed by Abe Bergman, Head of the Children's Orthopedic Hospital and Medical Center's Outpatient Clinic, 4800 Sand Point Way N.E., Seattle, Washington 98105. We would appreciate hearing from any Alaskan physician of any children who may have been diagnosed with cancer in Alaska but who expired 'outside', other than in the States of Alaska or Washington, during the period 1963 through 1967. This study will help the WARMP Automated Tumor Registry get started.

May I congratulate you all on the establishment of the Cobalt Unit in Anchorage. This combined private - public endeavor is an example for all of us to follow.

Thanks for whatever help you may give us.

Sincerely yours,

John R. Hartmann, M.D.

Dear Sir:

Both as a former associate member of the Alaska State Medical Society and The Anchorage Medical Society, as well as a former commissioned officer of The United States Public Health Service stationed at the Alaska Native Medical Center, I feel compelled to comment on many of the statements contained in the December 1968 issue of *Alaska Medicine*.

While I do not consider myself an expert in the health problems of the Alaska Native, I had many opportunities during my two-year tour of duty from 1965 to 1967 to observe the medical needs of the Alaskan native. These opportunities came not only from observations made where I was responsible for anesthesia at the Alaska Native Hospital in Anchorage, but during numerous field trips and emergency missions to every field hospital, save Mt. Edgecumbe, and to several of the remote villages along the Yukon River.

I have always resented the frequent disparaging comments made about the Public Health Service, including my fellow medical colleagues, not only by uninformed politicians, but by even those of the medical profession. These individuals, for reasons unknown, choose always to overlook the many accomplishments of the Public Health Service in Alaska, which include the control of tuberculosis, the establishment of an effective hospital system available to all individuals in the outlying areas of the state, the formation of the village health aide program, the control of many infectious epidemics, to mention just a few accomplishments. These critics picture the Public Health Service physician as either a bureaucrat incapable of treating sick patients, or as a two-year draft dodger, afraid to speak out and eagerly awaiting completion of his tour of duty. These critics espouse the need for the doctor-patient relationship but apparently are too blind to realize the harm they are causing this relationship by their unfounded public condemnation of the Public Health Service and its many dedicated physicians.

The critics of the Public Health Service Program in Alaska are quick to point out its deficiencies, most of which are realized all too well by those involved in the operation of the Alaska Native Health Programs. However, the solutions offered for the correction of these deficiencies are either nonexistent or verge on the threshold of absurdity. The proposed solutions all have in common include getting rid of the P.H.S. and delegating the health

problems of the Alaskan native to the private medical profession.

While to the staunch supporter of free enterprise, such a solution might have its appeal, unless the medical situation of Alaska has radically changed in the past few years, such a program could only result in the almost complete cessation of medical care in the outlying areas of Alaska. It takes far more than a yearly field trip to a favorite mission to give comprehensive medical care. Tonsillectomies under primitive anesthesia with insufficient nursing and ancillary medical care will not cure or substantially reduce middle ear disease. I would ask those who advocate the disbandment of the P.H.S. in Alaska, where they plan to get the necessary funds and, more important, medical personnel, not only to continue, but to improve the quality of medical care provided by the Alaska Native Health Service.

I am particularly concerned by R.R. Thompson's article, "After Two Years in Alaska with the U.S.P.H.S.", where it is claimed that the author speaks for "most two-year men of the P.H.S. in Alaska". If there is so much dissatisfaction among the "two-year men", how does this author explain the great number of "two-year men" who extend, who decide on careers in the Alaska Native Health Service, who elect to take P.H.S. residency training programs and request return to Alaska, and finally, who after they leave the P.H.S., speak highly of its activities in Alaska and recommend service in the P.H.S. to others as a means of honorably fulfilling their military obligations. Robert Thompson certainly does not speak for this "two-year man", and I question that he speaks for many others.

R.R. Thompson makes numerous pronouncements as to the shortcomings of the P.H.S. program. Much of his criticism is aimed at the lack of certain medical services. It would be wonderful indeed, if these services could be rendered. Unfortunately, the P.H.S. in Alaska is limited by funds, manpower, and legal considerations, to the task of providing for the general health needs of the Alaskan Native. To implement its responsibility, the P.H.S. has established programs for the control of acute infection, cancer detection, prevention of respiratory disease, decreasing the newborn and infant mortality rate, to mention only a few of its specific programs. He also feels it would be desirable if the natives of Alaska could pick their own physician, but I wonder how much choice the native people of the remote villages of Alaska would have in ever seeing a physician, were it not for the P.H.S. I am surprised that Dr. Thompson is not aware of this simple fact of life after spending a year at Tanana.

Certainly the P.H.S. has encouraged and cooperated with qualified private physicians who practice in the remote areas of Alaska. It has sought and welcomed constructive suggestions and criticism, not only from private practitioners in Alaska, but from renowned figures in the medical profession of national and international acclaim. The Alaska Native Medical Service has never denied or discouraged its beneficiaries from seeking medical counsel from capable physicians in private practice. Indeed, it has frequently requested additional consultation from the medical community for its beneficiaries.

To say that the health services of the P.H.S. could not be improved or augmented in Alaska would be short sighted. To imply that changes between the P.H.S., the Alaska State Department of Health and the private physicians of Alaska are not needed to improve the general health of the entire state population would be unrealistic. However, these changes for improvement can best be brought about by thoughtful discussion among mature physicians and other qualified people. The various parties must be cognizant of each others' limitations, whether these be the result of legal or financial considerations. By cooperation and mutual trust, the various parties responsible for health care in Alaska can complement various health programs and avoid needless duplication. Little improvement will be the result of reckless charges against the P.H.S. by publicity seeking persons.

(Continued on page 72)

ROSALIE SHOHL, M.D.

1927-1969



Dr. Rosalie Shohl died at her home on Tanaina Drive in Anchorage on April 18, 1969, following a prolonged illness. Born in Columbia, South Carolina, she attended Duke College and the University of Pennsylvania Medical School, where she graduated A.O.A. in 1951. In Philadelphia Rosalie married Theodore Shohl, who had graduated from University of Pennsylvania Medical School and was at that time a resident in general surgery. After internship and a year of medical residency at Philadelphia General Hospital, Rosalie completed her anesthesiology residency at the Philadelphia General Hospital with Dr. Eugene Connor and Dr. Margo Deming. She then continued on in practice there until the birth of their first child, Barbara, in 1956.

The Shohls practiced in California for three years before moving to Alaska in 1960 with Barbara and Peter who was born in 1958. David and Margo were born in Anchorage in 1960 and 1962.

Rosalie had joined the League of Women Voters in California and was also active in that organization here in Anchorage, at one time serving on the board of directors.

Ted and Rosalie brought with them to Alaska an interest in recorders and recorder music and were responsible for starting the Anchorage recorder group.

Rosalie loved the out-of-doors and the family spent a lot of time hiking and camping together. She was an ardent bird-watcher and loved Alaska's wildflowers, interests which she has passed on to her children. The Campfire Girls were her favorite community project and she served as leader or assistant leader during the past five years. Rosalie worked hard to help establish the resident camp facilities for the Campfire Girls at Kenai Lake, and helped formulate the medical standards and procedures for the camping program as well.

Over the past several years Rosalie and Ted entertained a number of students from the Far East who had visited in the United States under the State Department's Experiment in International Living. These young people stopped in Anchorage on their way home and Rosalie arranged for their housing, taking her own group of students on sightseeing tours and camping expeditions during the five or six days they stayed in Anchorage.

One of Rosalie's favorite musical compositions, the Schubert Mass in G, was performed in her memory by her friends on Sunday, May 18, 1969 at Alaska Methodist University. Ted and a number of other Anchorage physicians were in their usual musical roles as the chorus and orchestra presented a moving tribute to her before a silent group of her friends.

Elaine Mills



PRESIDENT'S PAGE

By James A. Lundquist, M.D.

Fairbanks

ambition who not only made a poor specialist in that field (when it was obvious that he would have been excellent in another) but lived in turmoil or anger all the rest of his days; a more mature decision might have made a happier man of him.

Medicine in the United States has undergone several revolutions with the changes and standardization in medical education that were brought about by the Flexner Report in the early part of this century and with the tremendous compounding of knowledge in the past few years. At the present time we are once again in the middle of a revolution, this time on two fronts, the one in the economics of medicine with increasing public and government interest, and the other in the changing pattern of practice from independent practice to group or hospital-centered practice.

With the increasing medical knowledge and complexity of diagnosis and treatment, there is increasing difficulty in training physicians who can keep up with advances and ahead of the minimum standards of practice set by one's own colleagues.

Several medical schools are making great changes in the curriculum and in the requirements for medical school admission, and with the majority of these I am in disagreement.

It is apparent from watching the radical movement in the Student American Medical Association that there is a poor selection of candidates for admission to the medical school. This radical movement exhibits such immaturity that it is impossible to believe that the medical school can in four years correct the situation and turn out adequate physicians. The practice of medicine, by its nature, cannot become involved in any extremist effort without the patient suffering. While there must be innovation and experiment, it must be with care; there must be foundations before a solid structure can be built. In medicine, carrying anything to an extreme is dangerous; gradual, well-thought-out change is the only lasting change.

Further, it cannot be expected that the medical profession can be held responsible for all of society's ills, nor can it provide the cure for all

Is it better medicine or more practical for a person with any medical problem to be seen by a physician who knows a little about many things and might be able to solve very adequately most of the patient's problems, or is it better that the patient see, for each system of the body involved, a different specialist who knows almost all there is to know about that system and little about the others? I expect that there is a happy medium somewhere, in which the poor old G.P. sees the patient initially for the greater part of his complaints and then refers the patient if necessary to the specialist most able to help. And in that system there is less waste of the specialists' talents upon the trivial problems or upon problems which are not at all within the scope of his specialty.

But, with current trends in American medicine, there is less and less likelihood of such a system as I propose and which once existed in the United States coming back into being. The reasons for this are tied to our whole system of medical education, which encourages specialization in most cases before the student has gained enough maturity to make a wise decision and which is no longer training well-rounded medical students. It has been obvious to me that there are cyclic changes in the numbers of persons completing specialist training in certain fields so that, for example, surgeons are a dime a dozen for a few years and then, following the glut, there is a decrease in the number of men seeking surgical residencies leading in time to a relative shortage. Exaggerating this cyclic variation is the current need for the student to make a decision to specialize in one field or another before he has been exposed enough to the realities of active practice to know the needs.

I have seen, too, the man who went into a specialty because of a childish ego-boosting

as SAMA suggests. While the intent of the American Medical Association was the best when it sponsored the Student American Medical Association, the end result seems to have been bad, more because of the type of student that now inhabits the medical schools than for any other reason. It would appear that medical schools no longer admit students on the basis of maturity, or polish, or well-rounded background, or on the basis of grades and past performance, or on the basis of innate ability, but rather on the basis of availability or because of membership in an underprivileged group.

It seems that the medical student of today has so much time on his hands that he can engage in radical politics when he should in actuality be studying and learning. It may well be that the medical school curriculum has improved since the days I was in school to the point that the student of today has more time to himself; but if this be the case, I would suggest that the time be used to compress the medical education into three years or to improve the quality of the graduates.

Certainly there are many courses in the medical education that could be shortened or dropped entirely for the average medical student; many might be given in a general way or as an introduction only, and the student who, after graduation, needed further knowledge in that field could return as a graduate student for more specialized training. It is unwise to bore the medical student with excessive preclinical courses providing information he will rarely if ever use again unless in some specialized field of research. It does seem that, since so much of the practice of medicine deals with the patient, the clinical courses should be stressed to a greater extent than they have been in the past and earlier than has been done in many of the schools. There has been a trend in many, which I think to be a good one, for instruction in anatomy, physiology, pathology, diagnosis and treatment to be taught as a unit for any one system rather than as separate and uncoordinated courses.

Some medical schools have begun the trend toward specialization early in the medical education, allowing the student to choose among three or four curriculum patterns. The average student knows little enough about medicine, and he can base his decision only on emotion. It should be the goal of the medical schools to turn out well-rounded physicians with a broad general education; every specialist should know how to treat a headache or an ingrown toenail.

The dramatic elective courses offered in some of the medical schools (cancer surgery, for example) may do nothing to improve the student or to help the patients he will ultimately see in his practice.

The better specialists are often those who have the more general background upon which to base their specialty; these are usually men who have had experience in the practice of medicine before seeking specialty training. At the present time there is an increasing need for physicians in general practice in this country, while at the same time there is a continuing trend away from this field in the medical schools. The need might be met in great part by having each medical student well-rounded in his training and experience and by requiring a period of several years in practice before specialty training could be sought. It would likely mean that many who would otherwise specialize might choose to stay on indefinitely in general practice, once they had been exposed to it and found what rewards it can give. Those who in time did become specialists would be far better ones for having had the experience of general practice. Further those who did specialize would be able to use their talents to the fullest rather than spend much of their careers as specialists weeding out the commonplace problems from the many patients they see.

It is a tragedy in all fields of education that the system is in the hands of the professional educator rather than in the hands of the applier of knowledge. It is wise, perhaps, to have as teachers in most if not all departments in medical school, men who are or have been actively engaged in private practice. It might be wise, too, to separate the basic researchers from medical education; they often make poor teachers, and they cannot do justice to research when they must teach. (Further this change would reduce the apparent cost of medical education; at present much of the research costs of the medical schools are included in the figures indicating the cost of medical education.) We should put practicality and the interest of the patient back into medical education.

The well-rounded physician might just be secure enough in his knowledge that he would not seek the emotional support and the comfort that most M.D.s now seek in the already-crowded larger medical communities, and would enter practice in the many rather isolated communities that now badly need and can support physicians.

ONE ALASKAN'S IMPRESSION OF POSTGRADUATE MEDICAL EDUCATION

By A. von Hippel, M.D.

A number of professional medical groups and at least one state medical society have approved of the concept of a minimum yearly "fair share"¹ of postgraduate medical education. Once this fair share is established by vote, it will be a simple matter to ascertain who is suffering from a dangerous educational deficiency. Presumably, a faltering physician can then be placed in protective custody, and either force-fed or destroyed.

That adequate educational intake does not assure utilization has long been obvious. Equally obvious to an honest clinician are his own inexplicably poor results. It is in frank and open medical discussion with one's peers and consultants that postgraduate education seems most effective and efficient.

Most training programs are insulated from the realities of medical practice. The often - looked - down - upon man in the front lines can readily detect deficiencies in his own training and teachers, and could enrich the program strong in theory with his wealth of clinical experience. It is not unusual, for example, for the man in private practice to see a clinical commonplace reported as a rare case or procedure, complete with a review of one hundred other reported cases.

A great stride toward closing the communication gap between teaching programs and practitioner would be to require recertification of all teaching clinicians every five years. Such a periodic review would relieve basic researchers of clinical teaching responsibilities, and lay to rest worn adages such as "Those who can, do, and those who can't, teach". It would emphasize the residents' responsibility to the patient. The "Golden Rule" must often be relearned after a residency in which one's instructors are more interested in dealing with the disease than the patient, and where the out - of - practice professor sets the tone by causing a marked rise in morbidity and mortality with his monthly or semi-annual sally into the operating room. The recertification would also

de-emphasize research. Most clinical research is a waste of time for lack of proper guidance and motivation. It is only the favored few who accomplish much. These few will pursue research in any case.

The examination for recertification could be performed by full time practicing physicians from another area, men recognized as consultants within the field. For many clinically active and versatile teachers such recertification would be a mere formality. However, the many others occupied largely by research, meetings, and administrative work would be required to serve a three to six month locum tenens in an active private practice to renew and demonstrate their clinical skills, or else they would be transferred from the clinical teaching service and properly placed in research or administration. The teaching service would not suffer, as the physician whose practice was being taken could easily substitute in the teaching program.

Thoughts on the Medical Literature

(1) Medical journals should be required to state their purpose and suggested specialty audience inside the cover.

(2) The Table of Contents should be clear and concise.

(3) Advertising should be kept out of the clinical pages. That includes (a) articles from an old buddy that you would otherwise never publish, (b) repetitive reports, (c) reports on 5,000 or 10,000 gall bladder cases with emphasis on the percentage reporting audible borborigmi pre-and post-operatively (as usually abstracted and written up from the intern's history by a resident doing a compulsory year of "research" and mostly operated upon by some other resident and authored by the chief). If published at all, such articles should be listed in the index of advertisers and not in the Table of Contents, and should pay regular advertising rates.

(4) Clinical journals should eliminate all articles describing work allegedly done on thirty-nine mongrel dogs. If significant, these can properly be printed in a research or veterinary

(1) The average American has 2.2 colds per year. As I complete my fifth cold of the season it becomes increasingly apparent that someone is not getting his "fair share."

journal for maximum accessibility to clinicians routinely caring for mongrel dogs. Getting the dogs, rats, and experimental equipment out of the people journals would reduce by over 80 percent the initial paper load of the clinical journals and thus permit advertising to carry the publication and subscription costs. It would also reduce the risk of injury or death by slippage of huge stacks of journals piled about the practicing physician.' Incidentally, certain journals such as the NEJM are uncommonly hazardous because of their wedge shape and slippery covers.²

(5) Legal procedures must be used in selecting papers. A notarized statement that the results were exactly as reported, that the same or a similar presentation of the topic or procedure had not been submitted or published elsewhere, and that the author reporting it actually did the work detailed, must accompany each paper submitted, as must a notarized summary of all previous papers.

(6) Legal liability for any new procedure or technique should be clearly that of the author. He must provide his raw data and guarantee that any adverse reaction or result not previously reported will be publicised by a printed notice in the next issue, as well as by an immediate notice circulated to all subscribers of record. Pending such notice, the proponent of any new clinical technique or procedure should be held legally co-responsible for all complications resulting from known but unreported, inadequately investigated, or misrepresented defects of the technique or procedure.

Hopefully this legal responsibility, plus the separation of clinical from research journals, plus intensive cooperative editorial direction and selection by those educators now specializing in discussions of postgraduate medical education, will assure that any work presented in clinical journals is well and carefully done by the legal author of the paper. A great bonus would be the sudden disappearance of that great mass of material of unknown worth "included only for

the sake of completeness" and known as "common law research". The author will surely think twice before taking legal responsibility for recommending procedures of unknown worth with which he has no personal experience. A yearly progress report on all "advances" will be provided by the legal author as a matter of course as well as law.

This legal liability doctrine should also require that teachers and authors specify in any review article, course or textbook, whether the procedure or course of therapy advocated was their own development or another's, and if another's, whether they are merely quoting his results or actually have personal experience with the matter or technique. Elimination of "common law" material could lead to shrinkage of many texts by over 50%.

Conclusions

(1) If as experience suggests, good doctors can be made from physicists and philosophy majors, any college requirement should be eliminated. This would stimulate older, well motivated, and intellectually equipped men to enter medical studies and would free many physicians for medical practice at a younger age.

(2) Residency programs can be shortened and markedly improved if their purpose of furnishing a qualified physician for medical practice is recognized. All clinical teachers and department programs should be recertified every five years by prominent practicing physicians from another area. Those instructors and professors who cannot document an adequate clinical experience would be provided with a three to six month supervised locum tenens opportunity in their own field and replaced in the teaching program by a practicing physician, or they would be allowed to leave clinical teaching and devote themselves full-time to their research or administrative duties.

(3) The Golden Rule should be re-emphasized in clinical instruction, e.g. "Transplant unto others as you would have others transplant unto you".

(2) A weekly jump test by the clinician at the door of his office could well save his life.



SOME THOUGHTS ON MEDICAL CARE IN UNDERDEVELOPED COUNTRIES

By Henry Wilde, M.D., F.A.C.P.
JUNEAU

About two years ago, on a visit to a typical provincial capital of a West African Republic, I was able to spend several days with the surgeon of the district hospital. He was an Eastern European expatriate, about 35 years old, had completed a general surgical residency in his native country and was accompanied by his pretty pediatrician wife. When asked what his main problems were, my host replied: "My wife and I are the only qualified doctors in this province of about 100,000 people. I have two medical assistants and four partly trained nurses on my staff. Our hospital, with 50 beds, is the only one in the whole province. There are four midwives who had on-the-job training and one laboratory technician who can do a stool examination, a white blood count, a malaria smear and a hemoglobin determination using a visual method. He is unable to prepare blood for transfusion and I have no blood typing serum in any case. I have an old French fluoroscope which has been out of order for the past year. I have only four pairs of patched surgical gloves which we save for open reductions and hernia operations. These seem to get infected if I operate without gloves. Intra-abdominal surgery does well without using gloves provided that I wash my hands well and soak them in alcohol before and several times during surgery. We use white sewing silk from the local market for all sutures. Needles and knife blades are sharpened till they become too short for further use. We use washed disposable syringes, which you gave us some time ago, for intravenous injections and at times we have no choice but to use them for intramuscular injections as well. It rains into the

operating room during the peak of the rainy season and at one time an assistant had to hold an umbrella over the abdomen of my patient to keep the water from contaminating the incision. Our electricity supply is uncertain at best and we have operated by the light of an oil lamp and flash-lights. I have not nearly enough drugs, dressings and time. My staff is poorly trained, badly paid and only slightly motivated. My wife and I frequently do chores which should be done by an aide. I am forced to devote much time and energy to the care of minor and often imaginary ailments of the district governor and his large family. These are the people on whose good will we depend to stay alive and reasonably comfortable. There is no way of evacuating a patient to the capital city or to any other medical facility. Consequently I frequently perform procedures for which I have neither the training, equipment or staff. My wife and I have been lucky in that the local people are on my side and that we enjoy the trust of the town elders and of most of the old medicine men in the villages. I have attempted to befriend, educate and use the latter rather than quarrel with them as my predecessor had done. This, I think, has been of great benefit to my patients who are sent to the hospital sooner and often receive some follow-up care from the medicine man in the villages. Through my good relations and mutual respect with some of these traditional "doctors", I have also been able to gain valuable insight into the culture, habits and minds of my flock. The Land Rover which has been donated to the district surgeon by UNESCO has been appropriated by a local official but I have just

received permission to import (from my own modest salary) a small car. If I manage to maintain my good relations with the Governor, I'll even get gasoline for it once it arrives. Professionally, life is never dull. Falciparum malaria, kwashiorkor, anemias, schistosomiasis and other worm infestations, leprosy, polio amoebiasis and tuberculosis are some of my main problems. I could operate on huge inguinal hernias all day and the obstetrical complications which come from the villages would be a nightmare to an expert obstetrician. I am the dentist and my own mechanic but do have a good surgical assistant whom I found in a village on a wild boar hunt (he was my guide) and whom I am now training to be a sort of surgical technician. My wife lacks reliable help completely. She simply does not have the time to sit with a dehydrated infant needing a scalp vein infusion and there is no one who can be trusted to do this for her. These things are very frustrating to her but she is learning to improvise. She has recently taken to giving fluid replacement intraperitoneally with a large syringe. This requires no nursing care, is done rapidly and seems to work very well. We practice mostly shotgun medicine and that only if we have drugs. Mail from home takes a very long time and is frequently lost. Except for such minor irritations we really have no serious problems.

An exaggerated anecdote? Unfortunately not. It is a true story and one which could have had its setting in almost any African, Asian and perhaps South American country. It is a fact that about half of the world's people live in the underdeveloped regions ($\frac{3}{4}$ if one includes Red China). Medical problems and medical care are vastly different there than in the so-called developed nations. In our image, a physician and his team are dressed in neat white uniforms, work in the aseptic environment of a modern clinic and provide careful, individual and attentive care to each patient with all drugs and equipment immediately available as a matter of course. To promote the export of this type of medicine to an underdeveloped country is often a project which readily gains public support. Is it, however, really practical? Let us examine some of the more obvious problems of providing medical care to an average underdeveloped country. We shall take as an example a newly independent West African Republic where I recently spent over two years.

This average underdeveloped country has

been independent for about eight years. All of the French colonial medical officers have long departed and there has been a general decline in the economy, in the purchasing power of the local currency and in the living standard of the population. There also is now an element of political instability and a general lack of confidence in the future. The maximum which this country can possibly spend on the total medical care of the population (including all drugs, vaccines, salaries, building and maintenance of hospitals and dispensaries) is the equivalent of U.S. \$1.00 per inhabitant per year. Should this expenditure be increased, it would have to result in intolerable cuts in expenditures for education, transportation and the development of the economy. No government which expects to remain in power could and even should risk such cuts. The average annual personal income in this country has been about \$75.00 per year and the majority of the population live off subsistence farming. The doctor-population ratio is 1:5,000 in the capital city and up to 1:100,000 in the provinces. Forty-five to fifty percent of all children born are dead by the time they would be five years old. The average life expectancy is around 39 years. A 45 year old man is considered old and a 45 year old woman is thought to be very old. The annual population growth rate is nevertheless about 3%; almost enough to double the population in 20 years. A medical college is being organized in the capital city, but it is very likely that most graduates, following the experience in neighboring countries, will end up migrating to Europe, the Americas or more desirable parts of Africa. Most of the ones who will remain at home will end up working in the capital city or will become government officials in fields other than medicine. The present Ministers of Justice, Education, Foreign Affairs and Transport are all fully trained medical doctors. Many current physician posts must be filled by expatriates while native doctors, often trained at great sacrifice to their families or with government stipends, delay their return home by taking prolonged advanced post-graduate training abroad. The situation in this country is so bad that 50 percent of all practicing doctors are foreigners, while an almost equivalent number of natives are permanently settled abroad and have no intention of ever returning to their native country. Most of the medicine in the rural regions is still practiced by village health aides, medicine men who mix animist and tribal rites

with healing, or by a village midwife who had no formal training. The few district hospitals are much too remote to be of help to an average patient since transportation is either too expensive or not available when it is needed. A network of village dispensaries is being planned but still far from a reality. Admission to a hospital, even in an urban center, is to the patient still synonymous with impending death and is frequently refused with him preferring to return to his home village to die among his extended family group. Hospitals have no diet kitchens and frequently no food service at all. The burden of feeding the patient is placed on the family, fellow tribesmen who live in the city or on friends. Nursing care is poor at best and often nonexistent at night. There are no visiting hours at the hospital and family members are usually camped in the hall or next to the patient's bed. The doctor, if at all available, has a wild assortment of drugs from many countries half of which he does not know. Chloramphenicol, for example, may be available in five different trade names depending on the country of origin. One may simply be told by the drug clerk that none is stocked though the French Typhomycin or a Russian form with Cyrillic letters is right under his nose. The country has no board of physicians and pharmacologists who make decisions on how to spend scarce foreign currency best and on the most effective drug for the price. As a result, you may find that weeks go by when there is no Chloroquine to treat patients with malaria yet expensive sex hormones or cytotoxic drugs are available and mildew on shelves in substantial quantities.

The further one goes from the capital city, the worse the situation becomes. National pride requires that every position vacated by the former colonial government has to be filled by a native though there are few qualified candidates. Once he has become an official, he will by tradition be more responsive to the pressures from his extended family group (which in this African country may represent a whole village) than to the needs of the nation at large. His loyalty will certainly be to his family first, village second and country last. It is also a matter of pride to live as much as possible like the formal colonial official did who, after all, had considerable material support from his home country. A Mercedes-Benz or Citroen, a large house, a Swiss account and a vacation in Europe

are thus frequently the main professional goals of this new elite. Above all, one must live in the city where all the action is. For a native doctor to be sent out of the capital is thus often considered synonymous with political and social exile. This is not to say that there are not many dedicated people who do their best and struggle against formidable odds, but it is usually only a matter of time until their energies run out. This pattern is true for all segments of public service and it causes, among other problems, a very unequal distribution of resources and talent with the provinces getting the worst of the bargain.

What then is the answer to our wish and responsibility to take at least part of modern medical advances to the underdeveloped world? Let us look at this under the heading of statements often seen when this subject is being discussed.

1. One must bring adequate medical care to underdeveloped countries by building modern hospitals in all district capitals which then would set a standard and act as referral and teaching centers! Wrong! This has been tried in several underdeveloped countries and has mostly been a dismal failure. Modern hospitals have been built in rural settings with no personnel to staff them, expensive equipment rusting in corners and with the institution rapidly reversing to the status of the usual bush hospital, where the medical assistant staffing most of the wards and outpatient department does not have the training and time to use half of the equipment provided. Many village dispensaries could have been built and staffed by inexpensive health aides for the money spent on such a hospital. Such village facilities would provide badly needed care to a large number of people, otherwise without any medical help. Before a modern district hospital can function effectively and justify the exorbitant expenditures required, a firm basic structure of such village health centers staffed by the best health aides which the economy can afford must be built. This advanced state has not yet been achieved by any West African Republic and only by very few underdeveloped countries elsewhere. I also fear that it may still lie well beyond the present resources of most of these nations. One must not forget that building a modern hospital in most poor countries will cost about \$5,000 per bed and per medical position created. To create an average industrial job in these same countries, where underemployment is a major problem, will only cost about \$280. About \$1,500 to \$2,000

creates a job for a village health aide in a very adequate village health center if local materials are used. It is very obvious that our West African Republic, which can only spend \$1.00 per inhabitant per year on medical care, can not build and maintain or staff very many district hospitals. It would certainly be foolish to build such hospitals at the expense of a network of village dispensaries, when one considers also that experience has shown in East Africa that a modern teaching hospital had no measurable effect on child mortality rates (a good measure of the level of medical care) beyond a radius of only 20 miles. It was also shown in the same country that a good village health center staffed by one or more health aides will do just about as well for a radius of 10 miles.

2. More scholarships for study abroad should be provided for doctors and nurses from underdeveloped countries! Wrong! Too much medical manpower is already being siphoned off to the United Kingdom, France and North America where these people remain far too long, become overtrained and accustomed to a high standard of living completely beyond their reach back home. This almost invariably results in a frustrated unhappy individual who ends up belonging neither here nor there and who frequently decides to remain in the first developed country where he can gain a foothold.

3. More aid money must be provided by the rich nations to the poor nations so that they can afford a higher level of medical care and public health! Partly right! There is little doubt that the rich nations have a moral obligation toward the poor nations and that some of our surplus should be spent on improving the lot of our fellow men. Unfortunately, it has been a frequent experience that aid funds are squandered or are used on ill conceived show projects which have political but little practical value. Gifts and low interest loans for health projects should, therefore, be well thought out and honestly administered. No thanks should be expected and will only rarely be expressed since most underdeveloped nations expect such aid as a matter of course. Medical aid projects should not be motivated by political considerations, for the worthwhile projects are usually not very visible and thus disappointing to the propagandist and politician.

4. We must find young doctors in this country who will go to the poor nations and show these people how to practice modern medicine! Partly right! Anglosaxon medicine is

almost universally respected in the underdeveloped world and there are probably only very few American doctors in Africa who have not been consulted by often Communist - leaning government officials when other physicians could just as easily have been summoned. There is a definite place for an adventuresome and dedicated American, European, Australian or Japanese doctor in the underdeveloped world. He should best be young, fresh from hospital training, or should be a mid-career seasoned expert. He should not expect to produce dramatic changes or to become a second Albert Schweitzer. He must understand that the doctor's role and indeed his practices must, by necessity, be different there from here. It is probably best if he does not remain too long since it is easy to lose one's judgement and perspective in the professional isolation which would confront him. If such a doctor is humble and has the proper attitude he will almost certainly learn just as much himself as he will contribute to others. He will have the added satisfaction of being needed and of filling a position which most underdeveloped countries could not presently staff with equally well trained natives. Furthermore and perhaps most importantly, he will be a better doctor when he returns home.

5. The main answer to the health problems of underdeveloped countries is the building of medical colleges! Partly right! I have attempted to show that an underdeveloped country may have a better chance of retaining health personnel if they do not go abroad for extensive training periods. This makes the building of some type of medical colleges a necessity. If one, however, trains more than a fixed number of doctors annually, these will not all be able to find suitable hospital employment and will have to go to village health centers. This only very few will be willing to do and if they are forced they will find themselves badly overtrained, unhappy and ineffective. If the local medical degree is acceptable to neighboring countries, there will be a migration of this "surplus" of doctors who have been trained at great cost. It is therefore much more sensible if the main training effort in the average underdeveloped country is directed at producing a middle echelon health worker called variously "Medical Assistant", "Senior Dispensor" or "Feldscher". Such an individual can be trained in three years after basic schooling at far less expense and is often better prepared to practice

in a "mud-and-whitewash" village health center or district hospital outpatient department. He will also have a closer social and working relationship with his fellow villagers and patients than a university trained "high ranking" doctor. It has, furthermore, been demonstrated in many countries that this type of individual can be trained to handle up to 90 percent of problems and often becomes expert in such procedures as hernia operations, cataract extractions, routine orthopedics and appendectomies. He can do an upper and lower radiographic examination of the intestinal tract and can learn how to screen chest films for disease. I have seen such individuals who are very experienced in the diagnosis and treatment of most major tropical medical problems such as malaria, infant dehydration, leprosy, tuberculosis and amoebiasis. A very respected Professor of Medicine at an East African Medical College recently stated at a conference that any medical or surgical procedure which is routinely and frequently performed in an average African hospital should be turned over to properly trained para-medical personnel. This creates more time for the university trained doctor to perform such more rewarding activities as teaching, supervising and performing more rare and complicated diagnostic and therapeutic procedures. Much of the same can also be said for the training and activities of registered nurses and graduate midwives who should have counterparts with less elaborate training to do repetitive and routine chores at less cost in training time.

6. Good preventive medicine must be the first goal in developing the medical care of an underdeveloped country! Mostly correct! A preventive medicine program can only function if there is a network of village health centers staffed by health aides, dispensers or medical assistants. These must be trained in-country and must become accepted by the villagers. Most of the poor countries have growth rates of 2-3½ per year in spite of a high child mortality. The latter

is mainly due to malaria and malnutrition which, in West Africa, frequently is the result of traditional feeding habits and not famine. Infant diarrhea and dehydration is then usually the final mechanism of death. An extensive health teaching effort on the village level, which would urge mothers to add readily available local foods to breast milk at an earlier age than the usual one year would, I feel, result in a marked reduction of the child mortality rate. If, in addition, one would distribute adequate quantities of chloroquine to village health aides with simple instructions to give a fixed amount to all children with fever, this would further reduce childhood mortality. When one considers that the annual population growth rate is now three percent in most African and other underdeveloped countries, it is obvious that any gains due to an even slight reduction in the child mortality rate would be wiped out by the results of overpopulation and depletion of food supplies. Obviously, some effective effort at birth control must go hand in hand with any public health program which is likely to result in a reduction of infant and child mortality rates.

The problems of getting modern medicine to the underdeveloped world are formidable and may, to some, appear hopeless. This, however, they are not. Some of the more enlightened developing nations are apparently recognizing that economic development, social advance, political stability, honest government and good medicine go hand in hand and that gleaming show projects in the capital city are no short cut to progress. Some have also become aware of the fact that simple imitation of practices of the former colonial masters may not work. I believe that medicine in the underdeveloped world, particularly in Africa, will have to develop their own answers to pressing problems. These may differ widely from accepted norms practiced in Europe or North America and must not be condemned simply because they are different or do not meet our standards.

REPORT FROM "OUR MAN IN UGANDA"

By Edwin C. Kraft, M.D.

Your letters arrived November 21, 1968, and it was wonderful hearing from all of you. Believe it or not, I started this letter the 21st of November, and here it is the 9th of December and I am still working on it. Later on, perhaps, you will understand why it has taken so long. There was a great stack of mail waiting for us when we arrived at Ishaka, November 10, after a long, hard, but interesting trip. I hope to write more about the trip in the near future, so won't say much about it here. We did spend a weekend in Rome then flew to Tunis where we had to wait a few days because of poor weather. Benghazi, Libya was our next stop then after again waiting for weather to improve, we flew to Cairo, Egypt where we spent a weekend. We felt a little uneasy in Egypt. The Saturday that we were there the Israelis briefly invaded Egyptian territory. The next day we left Cairo and flew to Aswan of Aswan high dam fame. Again we felt a little uneasy in that there were Egyptian soldiers dug in the full length of the run-way. From Aswan we went to Khartoum, Sudan. Addis Abbaba, Ethiopia was our next stop. Addis is a beautiful city in a mountainous setting almost 8,000 feet in elevation, with a very pleasant climate. From Addis we flew to Nairobi, Kenya, where we spent a number of days trying to get the plane into Uganda with no success. I don't know how this will work out, but at present, the Bonanza is at Nairobi. We flew East African Airways on November 8, from Nairobi to Entebbe, Uganda, where one of the nurses from the hospital met us with the hospital car. We drove to Kampala, the capital of Uganda, and took care of some business then spent the next day at Bugema Missionary College about 20 miles north of Kampala. The 10th we drove to Ishaka, about a three hour forty-five minute to four hour trip. The road is hard topped all the way except for the last forty miles and one can travel 50 to 80 miles an hour but has to watch carefully for bicycles and pedestrians as well as assorted livestock. The horn must be in operating condition and it gets plenty of use! The last forty miles take an hour and longer after a rain.

Ishaka Hospital is located on a high hill, and from the doctor's residence on the top can be seen green hills in all directions, covered with patches of trees, banana groves, open fields, and scattered African dwellings. To the north-west the

Ruwenzori Mountains can be seen rising to over 16,000 feet with a covering of snow on top. Not as majestic as the Alaskan range, but impressive nevertheless, when one considers they are on the equator. To the south-west can be seen three cone shaped volcanoes located in Rwanda. The hospital grounds and grounds about the residences on the hilltop are park-like. We have our own banana plantation with an abundance of bananas. Pineapples also grow locally and they are delicious. The weather is pleasantly cool --- much like last summer in Anchorage --- we sleep under several blankets at night. Ruby actually complains of the cold a good share of the time. The residences have no central heating system. At present, our days are growing longer by a few minutes every week. We are in one of the two yearly rainy seasons and we may have a brisk shower several times through the day. It is not the gloomy, dismal type of rain, but comes from large cumulus clouds passing by with the sunshine in between.

In spite of the beauty and the natural endowments of this country, the people live in poverty and under primitive conditions. Mud huts with dirt floors and thatched roofs with an occasional sheet iron roof is typical. There may be a few pieces of furniture or some straw on the ground for sleeping. Hot and cold water and toilets are found only in the cities. Sanitary facilities are generally non-existent or may consist of a pit latrine. Under these conditions, diseases resulting from malnutrition and intestinal parasites are rampant. Infectious diseases of all kinds are common. Infants, acutely ill from measles or from complications of measles, are frequently seen. Upper respiratory infections and gastroenteritis, of course, is very common. Primitive treatments are still in use, and one rarely looks at a patient, old or young, who does not have some scars where cuts were made over an ache or pain. One actually sees many infants with numerous burn scars on the chest where the mother has applied a hot knife to treat a chest pain or cough. The reasoning may go something like this --- an individual will have a swollen knee. A cut is made over the knee and dirt rubbed in and when the wound is infected and purulent the treatment is successful because the pus is coming

out of the knee. On the other hand are those who have some education and in spite of the primitive background, live quite comfortably and healthfully. The people themselves are friendly and pleasant, and our welcome was most warm and cordial especially by the African hospital staff. There is hope for these "emerging" countries, but it will take much patience and education (and I must add, Christianity) to overcome generations of ignorance, poverty, and heathenism.

On our arrival the 10th of November, one of the first things we did was inspect the physical plant. The medical directors home on the hilltop was in need of much repair and painting on the inside. It is a comfortable, roomy, brick house with cement floors. It has hot and cold running water when the electric heater is working and the storage tank in the attic is not leaking. It has a shower, bathtub, and a flush toilet. I use the word "flush" carelessly in that it seems like all English toilets are very temperamental this way. Two beehives occupied different portions of the attic. Later we took a portion of the ceiling down to get at one large hive killing the bees with D.D.T. spray, Carbon Tet., and Kerosene. For your information the Kerosene gets at them the quickest. We pulled much good looking honeycomb out of the attic, but we were afraid to use it in that we had sprayed a considerable amount of D.D.T. and Carbon Tet. around. The next night, George, our African maintenance man and his friends, went after the other hive with the idea of saving the honeycomb. They took a piece of sheetiron off of the roof and over the hive and the one man doing most of the work was right in there dressed only in shorts and a short-sleeved shirt. Barehanded and barefooted standing on the roof crowling with bees or standing down on the rafters swarming with bees, he was pulling large chunks of comb from the hive. It was fantastic! He either wasn't getting stung or simply ignored the stings. All the men seemed to have an enjoyable time and some nice honeycomb to take home that night.

A short distance from the Medical Director's house is a building consisting of a garage and guest room. Then a nurses' dwelling with rooms for two European nurses and a new residence for a second doctor is located a little ways down the hill. Further down are located two buildings, one housing storage and laundry. The laundry is supervised by an African man who is the tailor and makes linen supplies for the hospital. The

actual laundry is done by two men who wash by hand in cold water. The drying is done on lines and when these are full, the wash is spread out on the lawn to dry. The other building consists of bulk drug storage, standby diesel operated generator and maintenance shop. Below these buildings is the hospital with its separate "operating theatre". The buildings are red brick with sheetiron roofs and concrete floors. Uganda produces electricity for export to other countries and we have a reliable electrical service. One of the first things that I noticed was the water system for the hospital complex. The only good thing about it is the drilled deep well with an abundance of water, otherwise it is a system of various concrete storage tanks, some also collecting rain water from the roofs of nearby buildings, storage tanks in attics, etc. An ancient diesel engine runs two pumps, one lifting the water from the well and the other pumping it to the hilltop. Water is then gravity fed to other tanks, pumped into attic tanks, etc. It all really is a plumber's nightmare. My one big building project is to replace this system with a single steel storage tank and tower on top of the hill which will gravity feed the entire complex. This, of course, will take money which is a scarce item out here.

The hospital itself is very good by African bush hospital standards, but very primitive by U.S. standards. Actually the contrast between what is considered minimal in the United States and acceptable here is almost overwhelming at first. The patient area consists of two wings. In each wing is a ward of 20 beds and an end room of 5 beds, and a porch off the ward of 6-8 beds. One wing is for male and the other for female patients. One porch is the O.B. section with a delivery room on one end. To get to the O.B. section one goes through the general ward. Outside, off the end of each wing is a pit latrine. Flush toilets just can't be used, for the patients don't know how to use them. Anything might be thrown into the toilets keeping them clogged and out of order most of the time. The floor of the bathroom itself might be used, the patient ignoring the comode. In the central area between the two large wards are located the office, matron's office, washrooms, pharmacy, two private rooms, X-ray and examining and consultation room. The O.R. section is separate from the main hospital and approached through a covered walkway. On the outside of this building is located the only hot water outlet for the entire

hospital. The equipment is limited and old, most of it appearing to be castoff from other hospitals and donated to the "mission field".

We have no whirlpool and we have several infected burn cases. We improvised and the nurses donated their little Hoover portable wash machine which we have been using. It really churns up the water. I have had at least 2 of our staff ask me why that boiling water does not hurt or burn the patient. They have used a small electric sterilizer - plugged it into the electrical outlet and soon the water is boiling and hot. So if you plug this machine into the electrical outlet and it appears to be boiling how can the patient stand it? Reasonably, isn't it? One day we had a little girl standing chest deep in the machine with the water really frothing. A hospital visitor walked past the open door and stood and looked - very serious and worried - I'm certain she thought that the child was being boiled. It took quite a bit of explaining before she finally smiled. If we get many more burn cases, we will soon have the reputation as the hospital that boils children!

The staff is interesting. We have two Australian R.N.s with midwife training who have been here approximately four years. These girls are due to leave on furlough in about 5 weeks and only one temporary replacement has been found for them. Their leaving is going to be a real blow to the hospital program for they can treat and manage the patients when the doctor is not here, run the O.B. department, taking care of even complicated deliveries and do vacuum extractions, run the operating room and give a respectable general anesthetic, manage the pharmacy, run the business office, take care of medical records, monthly medical reports, supervise the nursing care of the patients and at the same time organize and direct a training program for the African staff. They will really be missed!! (I can hear some of you ask, 'What's the Doctor for?')

Our African staff consists of those with and those without formal training. Those with training are called enrolled nurses and have had 7 or 8 grades of school and possibly two years of secondary school. They have then taken a three year enrolled nurses course. These nurses are usually in charge of the wards. One sees dispensary patients at no cost and may see from anywhere to 40-90 patients a day. He will admit those to the hospital who he thinks need admission. He also has me see a few of these

patients that he does not know how to handle. This same enrolled nurse also takes X-rays. We have an old 100 miliamp portable machine which apparently was war-surplus. Another enrolled nurse does the lab. work. We have no exotic lab. facilities here, just blood counts, hematocrits, urinalysis, stools for ova and parasites, blood films for malaria, acidfast stains, gram stains, etc. We have three enrolled midwives with 7-8 years of primary school and possibly a year or two of secondary school and two years of midwife training. The untrained staff are those who have had no formal medical education. They have had some primary school, perhaps seven or eight grades and then have been taught right here at the hospital. My assistant in surgery is just such an individual. He has had eight grades of primary school. He has had no formal medical training except for what he has been taught here at the hospital. He actually is a real good surgical assistant and more or less takes charge of the operating room. The salary for the trained African staff will vary from 300-400 shillings per month. There are 7 East African shillings to 1 U.S. dollar so this amounts to \$50 a month. Those without formal training receive anywhere from 100 to 156 shillings per month or \$15-20. The highest paid African on the staff receives \$61 a month.

The Ankole District of Uganda in which Ishaka Hospital is located covers an area of approximately 59,000 square miles. The population is around 670,000 people or 113 per square mile. Mbarara Hospital which is a government hospital located about 40 miles from Ishaka has 250-275 beds with four or five doctors. Ishaka Hospital has 75 beds with one doctor. There are about four or five doctors at Mbarara in private practice. This gives one hospital bed for 3,250 population. There is roughly one doctor to 50,000 population. Since the doctors in private practice and practising at the government hospital cover just a small area of the Ankole District, there is actually one doctor to 250,000 people for the population away from the Mbarara area. That is me for I am the only doctor not located at Mbarara. The only thing that keeps this hospital from being over-run with patients is that we charge for our treatment, whereas the government hospitals treat patients free of charge. The daily hospital census will run anywhere from 45-70 patients.

The following are some of our charges. Remember there are 7 shillings to 1 dollar, or 1

shilling equals about 14 cents. The minimum charge for admission is 10 shillings. Hospitalization costs 1 shilling per day or 14 cents a day. If the patient wants one of the private rooms, it costs 5 shillings or 70 cents a day. A shot of penicillin costs 70 cents and a bottle of I.V. fluids costs the patient \$1.43. The flat rate for a delivery and hospitalization is 30 shillings or \$4.28. With an episiotomy it runs \$5.00. If a patient wants to see the doctor on a private basis, that is, make an office call, the patient is charged \$2.14. The most expensive surgery runs 100 shillings or about \$14.30. A hysterectomy runs a little under \$13.00 and a hernia repair, \$11.40. A WBC and differential costs 28 cents and a urinalysis, 7 cents. Dispensary patients are seen free of charge by the African nurse in the dispensary. They do pay for their medications.

This may come as a surprise to you, but the hospital runs in the black. In other words with these charges the African help is paid, and the hospital expenses are covered. The only expenses not paid out of hospital funds are the salaries of the European nurses, the doctor's salary and the maintenance of the residences for the nurses and doctors. Naturally we have to do without a lot of the supplies, equipment and conveniences that we are used to in American hospitals. We just don't use disposable rubber gloves, disposable catheterization sets, disposable spinal anesthetic sets and fancy Kling or Kirlax bandages. I have a patient that needs a long-leg walking cast, but I don't have any stockinette and sheet wadding, or cast padding. It is quite an education or I might say re-education. I have been here a month now and I don't get frustrated quite as often as when I first arrived.

I haven't been here long enough to speak of a typical day, but in general, I try to get down to the hospital at 7 a.m. or shortly after to make rounds. I try to see the patients every day and this does take time, especially when there may be 60 or 70 patients to see with many of them quite ill. If surgery is scheduled, it is usually scheduled for 9 a.m., but often I am not finished with rounds until 9:30 a.m. I then spend the rest of the morning and part of the afternoon in the O.R. I am supposed to go down to the dispensary to see patients at noon. These are the patients that the African nurse has kept for me to see. Lunchtime comes somewhere between 1 and 3 p.m. At 3:00 p.m. I am scheduled to see private patients. By the time I am finished with private

patients, perhaps there have been a number of new admissions to the hospital that should be seen. I may get home anywhere from 6:30 to 7:30 p.m. Although I have not been "beating the bushes" for surgery, there seems to have been plenty to do. There have been many D & Cs to do for incomplete abortions. There have been also numerous C-sections. Complications of labor and contracted pelvis is very common in this area. My first section was a woman who had been in labor for about 20-22 hours. The infant was shoulder presentation with a prolapsed arm, for about 16 hours. We did manage to deliver a viable infant and get by without any postoperative infection in the mother. There are many inguinal hernias in the adult males and many of these are very large. I have had several incarcerated hernias. I have had one total hysterectomy and left salpingo-oophorectomy. The patient had a large ovarian cyst or most likely an old burned out tubo-ovarian abscess with hydro-salpinx. Another interesting case was an adult male who had been ill for at least two days with an acute abdomen. On exploration the distal half of his small bowel including the terminal ileum was gangrenous and ready to fall apart even on gentle handling. The bowel resection worked out all right, but the patient expired about six or eight hours later. I believe the patient's problem was a marked hypo-volemia and he probably could have been saved with 3 or 4 units of blood. I believe many of these people have a chronic low blood volume for it seems that even after elective surgery without significant blood loss we have a problem with postoperative hypotension. There is plenty of GYN surgery to do here and there have been a number of cases that I would have liked very much to do a pregnancy test on. I would certainly appreciate it if the lab. could send me some information on the chemical pregnancy test done on a urine specimen. I wish I had paid more attention to this when I was in the clinic. We had one adult male who had been sick for about a week before he came in. He had an epigastric mass and on exploratory laparotomy, we found an ileocecal intussusception with the mass in the transverse colon. He did satisfactorily. We use spinal anesthesia wherever possible and of course I give the anesthetic, then scrub and do the surgery while the nurse monitors the patient and circulates. I have had two limb amputations to do, one below knee amputation for a chronic osteo of the tibia. The other case was a young man of around 30 years

of age with a massive sarcoma on the forearm. The tumor itself actually measured approximately 8 inches by 6 inches by 4 inches in size. It was a foul, stinking mess with maggots crawling around. The patient had a hematocrit of 8 volumes per cent. I was afraid he could not tolerate a general anesthetic so I did an upper arm amputation under local anesthesia. Even though I placed the entire lower arm in a big plastic bag and sealed it off above the tumor as best I could with adhesive tape and was as aseptic as possible during the procedure, the stump promptly became infected. I have skin traction on the stump now and it is packed open and it looks like sometime in the future I may be able to do a secondary closure. We had another very interesting case which was a three-year-old child who came in semi-comatose with irregular respirations, convulsions and spasms of the masseter muscle. I really didn't know what was wrong with the child, but she appeared acutely ill. In obtaining a history we did find out that the child had been fed fresh casava root. One of the sisters had heard that from improper handling and treatment of the root one can get cyanide poisoning. This was at least something to treat, but the only cyanide antidote we had was laboratory quality methylene blue crystals. We made up a 1 per cent solution and gave her 20 cc intravenously. There was a rather marked and rapid improvement in the child even though she did vomit blue and her urine was blue for quite a few days following the treatment. Two other cases and then I won't bother you with any more case histories. Mauling by lions is rare in this part of Africa because of the heavy population. We just don't have lions in this area except in the game parks. But apparently a lion came into the area about 20 miles away and began to kill cattle. The Game Department made an effort to destroy the beast only managing to wound him. He then attacked one man one evening and another man the next day. A relative of the last individual attacked by the lion became fed up with the whole affair and went after the beast and dispatched it with his spear. It really doesn't pay to tangle with these African pussycats. The first man sustained an arm injury and on casual inspection showed several small puncture wounds in the skin. But on closer inspection and probing, marked lacerations and bruising of the underlying muscle tissue was found. I had to open up the antecubital area and actually remove most of the lower portion of the biceps muscle. This patient got by without infection and was just discharged.

The second man was apparently grasped by the lion on the right thigh. Again there were several relatively small skin lacerations and puncture wounds. However, on exploration there was massive muscle laceration and destruction. The puncture wounds on the anterior aspect of the thigh and posterior aspect of the thigh actually communicated just missing the femur. This wound I laid open widely, debrided and packed with Iodoform Gauze making no attempt to close the wounds. I am still changing the packing on him just about every day and I believe all the dead muscle has been debrided and he may start to improve soon.

I guess I can't really say there is such a thing as a typical day unless it is just a day full of plenty of work. One never knows what is going to happen next. It seems as if I am running tired most of the time. We just received word that the entry permit had been granted by the Ugandan Government and we will soon have another doctor here at the hospital. Dr. Mortenson, his wife and 8 month old infant will be arriving within the next several weeks. He has just completed his internship in Spokane, Washington. It will certainly be a help to have another doctor here, but on the other hand this will precipitate some immediate problems. With only one European nurse coming to replace the two nurses who are leaving, with both doctors and the nurse relatively unfamiliar with the administration of this hospital and with a communications problem between the Europeans and Africans (both nurses that are here now can manage the local language quite well), I believe there are going to be two very frustrated doctors and one nurse who may soon find the situation impossible.

Now really I shouldn't anticipate trouble, it will probably work out just fine. (Positive thinking!) And on the positive side there is never a dull moment, no time to get bored. If the medical duties become tiring there are plenty of administrative duties to be performed. Our medical records are brief. Complete histories and physicals on each admission would be impossible. There are no discharge summaries and only a short operative note. Progress notes — none. Actually the records are too scanty and need to be a little more complete. One could develop some bad habits. There are not many "crocks" and often one really feels needed and that he might be doing some good. On the other hand, when the croupy infant can breath again, his

temperature is normal and he has been dewormed and is ready for discharge, you can't think about where you are sending him — right back to an environment that will start the whole thing over again — it is just too discouraging. The only answer to the medical problems that I can see is a nationwide intensive public health program, continuous mandatory education and the development of an economy that reaches out to all the population. And this, of course, won't happen overnight, for old practices, beliefs and superstitions disappear slowly.

Well, this letter is already much too long. Probably if I would wait another few months, I wouldn't even know what to write about, for the newness would have worn off. This, of course, is bound to happen, but I don't believe things will ever become just routine. There are just too many possibilities. Aside from our medical duties there are occasional trips to Mbarara, 40 miles away for shopping. Then there is an occasional trip to Kampala for shopping and hospital business. We are also looking forward to making a number of trips to the Queen Elizabeth Game Park about 40 miles from the hospital where one can see elephants, hippos, lions, and a great variety of water fowl. Carol Ann, our daughter, will be leaving the first part of January to attend the Maxwell Preparatory School in Nairobi. Having her away from home will take some adjusting and getting used to. I believe it is going to be harder on the parents than on Carol Ann.

We do miss Alaska and still consider it our home. Letters and news from home is always welcomed. So let us hear from you again in the near future and I will try and be more prompt in answering. May you all have a happy holiday season and the best in the new year.

February 19, 1969

The longer I am here in this part of Uganda the better I like the climate. It seems to be an almost ideal climate, something I never dreamed one could find in Africa. We have been enjoying an abundance of locally grown fresh fruits and vegetables.

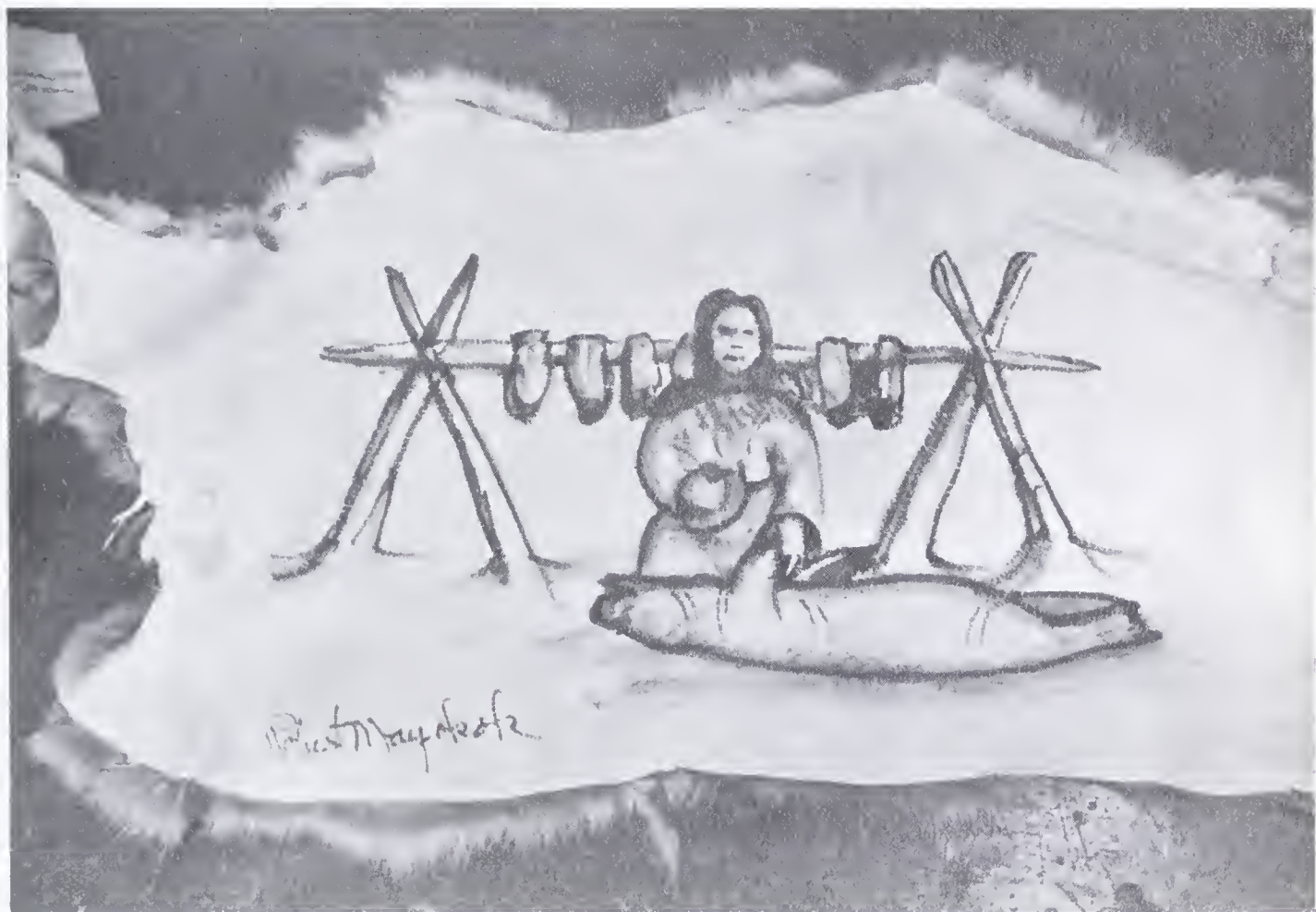
Dr. Mortenson and his family arrived the 20th of December. He just completed his internship in Spokane, Washington. He has already had malaria and no sooner recovered from that and was hit by the Hong Kong flu. So it has been a little rough on him, but he seems to be on his feet now. For the last week or ten days

our census has been running a little lower than usual and this has given me time to take care of some of the administrative duties so necessary in the operation of even a bush hospital. My current project has been to organize the pharmacy and to establish a running inventory system so that the drugs can be kept in stock rather than "finding it all finished" as the Africans say it when you happen to need an item in the worst way. The same goes for supplies. You take the cast off and it's all finished. No stockinette, no sheet wadding, nothing. Speaking of supplies, the simple things that you use in and about a hospital everyday such as bandages, I.V. sets, transfusion sets, needles, syringes, elastic bandages, etc., some of the stuff supplied here in East Africa, much of it imported from England and Europe is of very poor quality. Just plain junk. I have decided that the greatest drag on East Africa today is the British background or influence and pregnancies. If there are two ways of doing things, one simple and effective, the other complicated and inefficient, the British will invariably pick the latter method. Just watch them eat peas. They will insist on using the convex side of their fork rather than the concave. The Africans learned their lessons well from their colonizers. I am just getting started on another project which is the installation of a decent water storage and distribution system. We were just recently authorized to spend 25,000 Shillings on steel water storage tanks. It will probably take considerably more than that to get a real good water system for the hospital complex. Again British plumbing is just completely out of this world.

We do try and get away from the problems occasionally and last Saturday we attended a little church meeting out in the bush which is supervised by some of our African help here at the hospital. It was a beautiful day and the trip very interesting. We first drove 30 miles, then parked the cars and hiked across country for about 20 minutes to a small African dwelling. Here outdoors under the shade of banana leaves the service was held with about 30 people attending. After the service was over, our host invited us into his typical African home for lunch. This was a little mud hut with dirt floor covered with reeds. The cooking had been done out back over open fires on the ground. We had ekitookye "cooked bananas" with beans and scrambled eggs. It really tasted very good and we topped it off with a glass of water, boiled I hope.

Anyhow it looked clean. In the afternoon we drove on down to the Queen Elizabeth Game Park where after turning off onto a little-used dirt road we drove past many elephants, herds of African buffalo which appeared to eye the red Nissan Patrol rather menacingly and numerous water buck and impala. We parked on a bluff overlooking the Kizinga Channel and right below us was a large herd of hippos cooling themselves in the shallow water. There were also several African buffalo strolling along the edge of the

channel and in the distance could be seen a small group of elephants on the edge of the water drinking and cooling off. Really the whole setting was most peaceful and picturesque. In the evening we went to the Kitave School, a Catholic seminary for boys where we had dinner with the Fathers and then I showed my Alaska film to a most appreciative audience of African boys. It turned out to be a most interesting day and a welcome relief from the hospital routine.



ALASKA NATIVE COMMUNITY HEALTH AIDE TRAINING

By **Donovan C. Shook, R.S., MPH**

Chief, Office of Training Services
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In January of 1968, the Alaska Native Community Health Aide Training program was implemented in an attempt to assist the Alaska Natives to raise their health level through their own efforts. The Natives live in isolated villages spread over an area of some five hundred thousand square miles in villages ranging in size from 25 to 700 people, with many families scattered in between. Some of the villages are relatively close to medical services while others are hundreds of miles from the nearest doctor or hospital. For example, the villages served by the Alaska Native Medical Center in Anchorage average 370 miles distant from that facility. These villages are isolated not only by distance but also by weather conditions and lack of ordinary means of communication. It is not uncommon for days or even a week to go by before a small plane can safely evacuate seriously ill individuals to the nearest hospital. Most villages depend on radio contact for communication and the reception, dependent upon atmospheric conditions, varies tremendously.

Currently, as in the past, either private, State or Federal physicians and/or Public Health Nurses travel extensively from village to village but there are many villages and few personnel. Due to one or more factors, long periods sometimes result when no medical personnel are available in the village. During these intervals someone is needed in each village who can help provide interim service to the people.

In the 1940's, more so in the 1950's, and especially during the present decade, a member of the local community has been available to meet this need. The early Aides were informally trained and used as assistants by the itinerant nurses of the State Department of Health. These Aides helped the ill but until recently have had little, if any, formal training. Any instruction they received was "first aid" related since limited effort was made to stress preventive or rehabilitative

practices by the majority of the traveling health professionals. Therefore, the training program to assist the Aides in doing those things they have done in the past more efficiently and to stress the importance of preventive and rehabilitative functions was devised by the U.S. Public Health Service and has gained acceptance by the Natives.

A trained Health Aide in the village will not eliminate the need for professionals in the provision of health service. However, there are many things a well trained individual can do at the village location to provide and promote better health and health practices on a day-by-day, on the spot basis. It should also be remembered that knowledge and desire for improved health can only raise the health level of a community to a certain level. The capacity to advance to accepted levels is directly related to the social-economic situation in a community whether that community is in Alaska or the "lower 48".

At this time there are nearly 150 villages in the state which have one or more individuals performing Aide duties and services. Most of these Aides are women although there are a few very capable men helping in some villages.

Selection of the individual to serve as Community Health Aide is entirely the responsibility of the Village Council or Native governing body in the village. The Public Health Service has not imposed any requirements on the village regarding specific educational background, sex, race or national origin. We believe the Native Council can and will select the person they consider to be the most able to help the people. To assist the council in so-doing, we have suggested certain basic guidelines. The Community Health Aide should: be able to read and write in order to keep the minimum records and properly dispense the simpler medications, have a real desire to serve the people in their village as a Health Aide, be accepted and supported by the village and be able to attend training classes. The various councils have selected

an individual this year who they believe will still be the Aide several years from now regardless of politics or village elections. This one qualification is especially important now that the Aides are being trained and reimbursed for their services.

The training program referred to earlier has been divided into four separate segments. The total training time per individual is projected to be 10 weeks. During the first two week training period two ideas are stressed; the first is to improve current skills; the second is that the village people can do many things to eliminate illness or the severity of illness in the village. The first course covers eight general subjects: observation of signs and symptoms, reporting to the hospital via telephone or radio, following the doctor's orders, record keeping, drug administration as the result of doctor's orders, home nursing care procedures, resources available from other than PHS and prevention versus treatment. The class time is about equally divided between didactic and practical application of instructional material. We feel this procedure is necessary in order for the students to immediately put to use what they learn in the classroom. This first class for each group is held in the hospital that serves that particular region.

The second phase of the training will begin this coming September and will stress practices to prevent serious illness or complications resulting from uncared for minor illness to a much greater extent than was possible in the first course. In addition to disease, other subjects to be emphasized are environmental health, screening of the population prior to the physician or nurse's visit and how to motivate the community to desire better conditions.

Later courses will be an extension of the preventive aspects in relation to the individual village. Perhaps the result of the training program will be twofold: learning what can be done with available resources and what motivation can be accomplished in the outlying individual villages.

Any group of people must want to improve the health status before much can be accomplished. This desire for improvement must be in the community; it can not be forced on any individual or village. What better way is there to stimulate interest in improved health throughout Alaska's villages than to have trained Community Health Aides who are knowledgeable, accepted by the people and can relate to all health professionals?



AURORA DENTATUS



DENTAL EDUCATION

R. A. Smithson, D.D.S.

The May 1969 issue of the J.A.D.A. is devoted to Dental Education and provides interesting reading, particularly if one wonders about the future of Dentistry. The explosion of population, particularly that segment which is claiming the "Right of Health" at the expense of others, has made our society more complex, more intrusive, more confiscating of our time and talents. It is difficult enough to keep abreast of scientific and technical developments affecting our practices, now we are involved in so-called changing patterns of health care. Under various guises measures are being taken and programs inaugurated which socialize our profession. Until recently, persons outside the profession were primarily responsible for these steps down the path of the welfare state, but today our dental schools are training their own "Social" leaders.

Thirty-two of 49 dental schools today have a Department of Social Dentistry and the ADA Council on Dental Education anticipates all schools will have these departments shortly.

In April 1961 Phillip E. Blackerby of the W.K. Kellogg Foundation wrote a prophetic article in the Journal of Dental Education proposing Social Dentistry Departments in Dental Schools. He made a good case of it apparently, judging by the response of dental educators and the quick acceptance and acclaim he received from sociologists, Public Health officials, etc.

There is no argument with efficient dental programs. Dentists need to be involved from the beginning in overall health planning activities, and likewise, the principles of preventive dentistry should be implemented. Certainly the dental

school curriculum should include courses covering these fields.

There is argument, however, with the destruction of the private practice of Dentistry and free enterprise for the establishment of more sophisticated governmental Bureaus of the DoGooder variety. With the financial basis of dental schools more dependent upon federal and state monies, with larger federal government support plans for service, with research and special project efforts more dependent on foundation funds, it is becoming more evident that the voice of the private sector is growing weaker. Perhaps this is proper and we are reaping a harvest of our own sowing.

The Council on Dental Education has recommended other curriculum additions which should prove extremely helpful to the student and of ultimate value to the general dental health of the population. They are (1) Dental auxiliary utilization (2) Growth and development (3) Hospital dental service and (4) Occlusion and preventive dentistry. These additions do reflect the "changing patterns" of dentistry, although it remains to be seen where the emphasis will be placed and how the dental graduate is finally oriented.

Dr. Henry Miller, former Dean of Medicine and Professor of Neurology in the University of Newcastle upon Tyne, writes in the March 1969 ENCOUNTER.

"Regrettably, medicine and politics are inseparable bed-fellows. In fact, Rudolph Virchow, the greatest medical Panjandrum of the 19th century, said that "politics is just medicine on a big scale". Never has this been truer than at this present time, and implicit in every thing that I have said is the burning question of national priorities. Little is heard about this at political meetings — even during those few weeks before a general election when the politicians claim to instruct us as to the alternative political possibilities we are invited to enjoy during the subsequent five years. Nor are we likely to learn much about it from the columns of Hansard. The virtues of British parliamentary democracy do not include much opportunity for the public to give its views on such issues as whether it prefers nuclear submarines to new hospitals. Only the parliamentarians are well enough informed to be entrusted with these crucial decisions, and it would be ungracious to suggest that recent performance calls their wisdom into serious question."

POSTGRADUATE EDUCATION IN DENTISTRY

By Wilbur E. Bline, D.D.S.

In the past few years, there have been increasing pressures, both from within and outside of the dental profession, toward compulsory postgraduate educational programs to protect the public. Granting that there is not one of us in practice today who could not improve his technique with proper guidance, there are still a few items to be examined.

First, we all tend to rebel when informed we must do a particular thing. This is boldly evident in any newspaper we chance to read today. A person must be motivated to give that extra effort. If a person does have the motivation, he will seek his own education and will benefit by it. If he is not interested in further education, all the laws, rules and regulations that can be conceived will not make him a better dentist. While he can be required to attend certain courses to maintain his professional standing, this will not insure the desired results.

Another item open to challenge is the educational material presented. Now I do have a very high respect for most of the instructors in our dental schools, and the clinicians who take the time to travel to the different societies. These are dedicated men and we are very fortunate that they prefer this aspect of dentistry. However, if one is looking for practical ideas applicable to patient care, many of the clinics given are a complete waste of time.

For instance, I have a stone model depicting a type of cast gold restoration. It presents about five different planes together with four pins. It is truly a piece of art. This clinician had done a beautiful piece of work on this stone model. Now if he would show me how to do this upside down and backwards with a mirror about halfway back in a gagging patient's mouth, I would consider my time well spent.

At another clinic given on I.V. pre-med, a group of us listened intently so as not to miss any of the procedure. At the conclusion, we copied the recipe for the magic potion and rushed to the nearest pharmacy. It is not that I feel the procedure was wrong, on the contrary, it is just that I strongly doubt if one person in that

room, except the lecturer, ever tried it on a patient.

One outstanding clinician impressed upon us the value and necessity of only doing fine gold restoration on an ultra-ultra articulator. This, incidentally, costs as much as a medium priced automobile. Also, each occlusal surface must not only have supplemental grooves but supplemental to the supplemental grooves. Now the theory is that this articulator will provide better transfer of arch relationship and that the extra grooves are absolutely necessary for proper articulation. If this can be accomplished, fine, I'm in favor of the idea. I have, however, encountered instances where the dentist became disenchanted with some phases of the operation and elected to swap his mechanical wizard to the next contestant. The problem was that after his meticulous efforts had been transferred to the mouth, it was found necessary to drastically use a stone just so the patient could chew again. A minor detail, except to the patient.

I have in my office a postgraduate certificate for a certain number of clock hours in mandibular resection for prognathism. By all rights this should help to satisfy my continuing educational requirements. It was an interesting film and a fine lecture but nothing to bring home to a practice of general dentistry.

Too many of our clinics are presented by men of theory and research. If our clinicians were men who were actually using their techniques on real patients and were men who also depended on these same patients for their livelihood, then they could give us something of real value. Only practitioners are fully aware of the problems involved with a particular technique.

If more practitioners were on the faculties of our dental schools today, the curriculum would be oriented differently. To instruct a class of dental students is one thing, but to work and live with the public is an entirely different matter.

While some of the more sophisticated procedures may be and are adapted to our patients, we must also be practical. If we are to stay even with today's rising costs, we can do

two things — raise our fees, or produce more results. Of course raising the fee is simplest but not necessarily best. More work can be produced either by longer hours or better techniques, and I doubt if many wish to extend their time in the office.

Study clubs of the right type could be of value. I can think of no better topic than diagnosis and treatment planning. Probably more errors occur at this point in patient care than in any other area. A set of study models and

complete radiographs presented to a group of practitioners would produce varied opinions.

In the following discussion many sound predictions would be expressed. Unfortunately, most study clubs tend to concentrate on unusual problems, and not on the practical questions faced daily in the routine practice of dentistry.

Naturally some good can be found in any clinic if one will look for it, and many are very fine, but whatever the source, let's learn from men who can and do use the material they present.

ORAL CANCER DAY 1969

By James R. Sher, D.D.S.

At the time of this writing it is difficult to evaluate the results of the recently held Oral Cancer Day examinations. The purpose of the program was the early detection of suspicious lesions with subsequent follow-up treatment. Needless to say, early identification serves no purpose if follow-up treatment is not initiated.

Examinations were conducted in trailer units set up in four convenient locations in Anchorage. The day was cold and examining conditions at best were primitive. Over 20 Anchorage dentists took part throughout the day to examine 400 patients. Certainly in this respect, the day would be considered a success.

Upon further inspection, however, the results became a little more questionable. Lesions of a suspicious nature were found in 10 individuals. Of these 10 people, four were referred to general surgeons or their own physician and six were referred to Anchorage Oral Surgeon, Dr. B. Stephens. Of the six patients referred to Dr. Stephens' office, two have made appointments for further examination. Conceivably, the remaining four will make appointments with his office, or possibly they have seen their own physicians. Hopefully none of these lesions will prove to be malignant.

On the positive side, this unique attempt to examine the public did accomplish the following:

1. Examining dentists reached a segment of the population that does not seek routine or regular dental care.

2. The public responded favorably to oral examinations when these were made convenient and easily accessible.

3. Anchorage dentists responded enthusiastically when they were asked to perform a public service.

While refinements can be added to the method and manner of conducting such a public survey, it is felt that the idea has merit and should be continued in the future.

The Dental Society would like to thank those who assisted in this effort. The Lions Clubs arranged for trailers and ushered people into the units. The Anchorage Community College provided dental assistant students who proved to be quite efficient and competent, and the American Cancer Society provided the necessary publicity.

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Early in April the South Central Society hosted the dental hygienists and the school nurses of the area at lunch. Drs. Bob Brodie and Bill Bline, co-chairmen of Children's Dental Health Week, used this form of recognition for the participants of a successful observance of 1969 Children's Dental Health Week. Comments on the "Smile In" were made by Dr. Gerry Morrow, President, SCDDS; Mrs. Alva Scott, Director, GAAB School Nurses; Mrs. Lila Donley, School Nurse; and Elsie Ianetti Stefun, Dental Hygienist. It was a fitting finale for a job well done and a fine impetus for future cooperative ventures.

BROKEN NEEDLE: CASE REPORT

By Glenn J. Pratt, D.D.S. R. A. Smithson, D.D.S.

In this advanced era of sophisticated instruments and materials we have rare occasion to experience failure of instruments. The authors have practised Dentistry for a combined total of approximately 40 years and have never experienced, have never seen or known anybody who has broken a hypodermic needle in a dental injection of local anesthetic.

The 23 year old female Caucasian patient was being prepared for a routine operative procedure on an upper molar, the tissue over the apex of this tooth was dried and a topical anesthetic, Xylocaine ointment 5%, was applied to the tissues. An ASTRA syringe had been previously loaded with a carpule of CITANEST 4% anesthetic and a Monoject Roehr needle, 30ga. short. After the cheek was retracted the needle was inserted in the muco-buccal fold over the apices of the molar, deposition of the solution was begun — followed by a few seconds pause. As additional solution was being injected the syringe fell apart with a very startling sound. The patient, heretofore calm, made a sudden backward movement and the needle broke. This was not noticed for a few seconds until the syringe was examined and the stub seen.

The patient was told what had happened. Dr. Belton Stephens, Oral Surgeon, was contacted and advised to stand by. The search began. Several X-rays were taken from different angles to determine position of the fragment. Dr. James R. Coin, the radiologist in the building, suggested placing another needle in the soft tissues to use as a reference landmark. The position of the fragment was established as being in either muscle and soft tissue with the probability of the tip being engaged in the periosteum.

A horizontal 2.5 centimeter incision was made just above the attached gingiva through the periosteum which was then elevated upwards — care being taken to retract the cheek adequately without manipulating the tissue very much thereby moving the needle fragment. The needle was not found under the periosteum. Dissection of the connective tissues and the muscle fibers was started. The fragment was finally discovered in the muscle (Buccinator M) near its insertion in the maxilla.

The wound was closed with sutures to the great relief of operator and staff. Some two hours



Fig. 1 Two pieces of the 30 ga. needle.

had elapsed in the incident. The patient had an excellent attitude and was very co-operative in every way. There were no post-op complications.



Fig. 2 Broken syringe and amount of ampule used in the injection.

We asked ourselves several questions during the removal of the broken needle and subsequently. What caused the breakage? Was the abrupt movement of the patient's head the entire reason? We took new needles and bent them in various angles... they did not break until we tried to straighten them again, or bent them repeatedly. The 27 ga. was tougher than the 30 ga.; perhaps we should be using fewer 30 ga. and more 27 ga. for this reason. Today's disposable needles are always sharp and penetrate mucous tissues easily and painlessly, especially with the use of an topical anesthetic.

Are 30 ga. needles too easily deflected by the tissues during injection, and are we bending them routinely and unknowingly? Dr. Norman Olsen, the Pedodontist from Northwest University, at his recent clinic in Anchorage, discussed this subject briefly. He feels there is a great deal of deflection of 30 ga. needles, especially during Mandibular injections.

What criteria should be used to determine whether syringes are subject to breakage? Perhaps they should be discarded on some routine schedule.

It is hoped this report of a case will elicit some further analysis by other Alaskan dentists, and that it serves as a statement of caution.

GENETIC COUNSELING IN MEDICAL PRACTICE

By Peter T. Rowley

Division of Medical Genetics, Department of Medicine, Stanford University School of Medicine, Pal Alto, California.

Genetic diseases are becoming a more prominent part of medical practice for two reasons. First, with control of infectious diseases and the advances in diseases treatable by surgery, genetic diseases along with cancer and diseases of aging constitute a larger segment of the doctor's practice. The second reason is new methods of diagnosis. For both reasons, more and more patients are bringing to their doctor genetic questions about themselves and their possible offspring.

Genetic counseling is the providing of information about a genetic disease to the members of an affected family. Such individuals are especially concerned about the likelihood of recurrence. In addition to a risk figure, they need assistance in dealing with its practical and psychological implications.

There are four steps in genetic counseling:

1. taking a family history,
2. making the diagnosis,
3. determining the pattern of inheritance,

and

4. helping the family adjust to the facts.

Taking a family history

Let us begin with the taking of a family history. Genetic counseling first requires recognizing that a disease is familial. The family history may be neglected in the busy office or hospital practice. This neglect may cause the diagnosis to be missed.

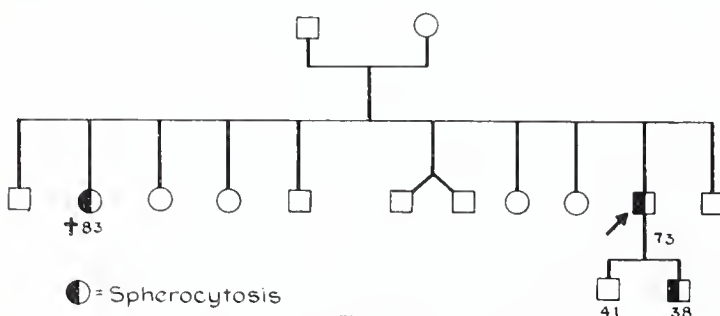


Fig. 1.

A family with hereditary spherocytosis.

A 73-year old man (Fig. 1, arrow) was admitted to our hospital because of anemia. A

conscientious intern detected a history of anemia in a sister and in a son. As a result the diagnosis of hereditary spherocytosis was made in this man for the first time at the age of 73 and his anemia corrected by removal of his spleen.

In taking a family history, some doctors inquire only about diseases that are usually inherited, like diabetes. It is even more important to inquire about what the patient is complaining of, even when the complaint is not one which generally calls to mind a genetic cause.

To make the family history complete, draw a pedigree of the family. Let the patient watch you do it. This may help the patient recall relatives he might otherwise omit.

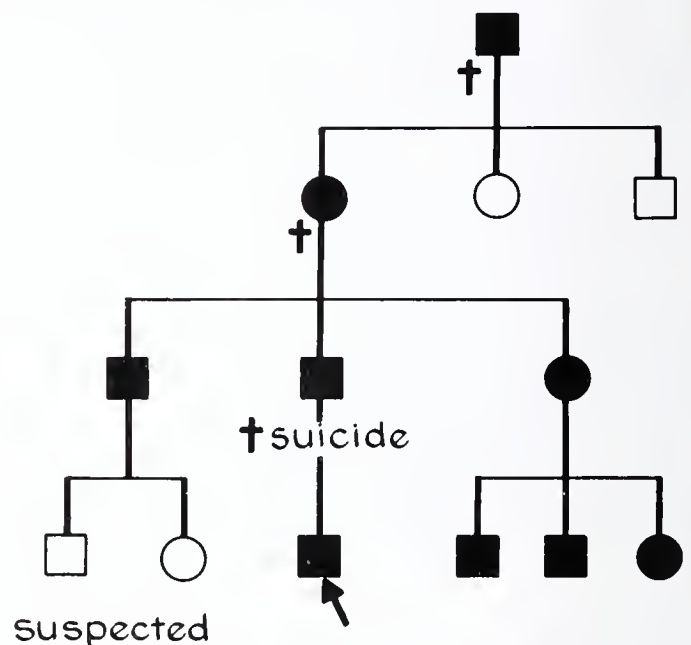


Fig. 2.

A family with Huntington's chorea.

It may be necessary to go beyond the patient for the crucial information. A 19-year-old Marine (Fig. 2, arrow) noted that his accuracy in rifle practicing was deteriorating. Even when involuntary movements appeared, he was hospitalized merely for "nervousness". It was two years before his mother came forward with the family history shown and the obvious diagnosis of Huntington's chorea was made. The characteristic triad is progressive involuntary movements, progressive dementia, and an

autosomal dominant pattern of inheritance. The patient himself had not been aware of 8 other cases in his family nor that the steady deterioration of his father had prompted his suicide.

Making the diagnosis

The second stage in genetic counseling is making the diagnosis. Sometimes the physical findings are sufficient for making the diagnosis. A 32-year-old woman came to us because of chest pain. Her long, thin extremities and digits, hyperextensible joints, sparse subcutaneous fat, chest deformity, scoliosis, and dislocated lenses made easy the diagnosis of Marfan's syndrome. Despite these deformities she had been functioning well as a registered nurse. When one day she had a severe chest pain, she correctly diagnosed the cause as a dissection of the aorta (also part of this syndrome) and promptly came to the hospital. She is now back at work with a homograft in place.

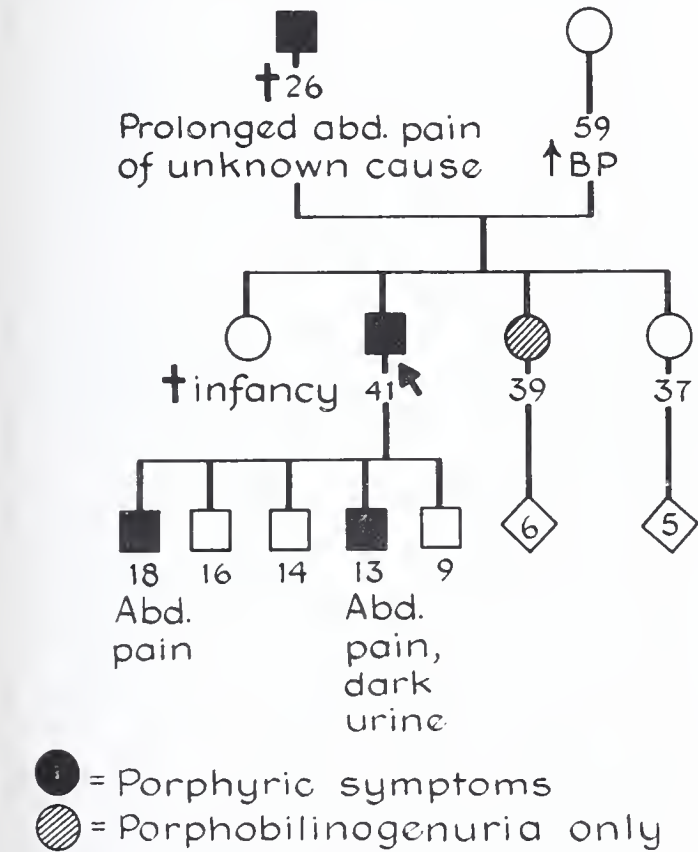


Fig. 3.

A family with acute intermittent porphyria.

Physical examination may not be enough for the diagnosis of genetic diseases and lab tests may be required. A 51-year-old janitor (Fig. 3, arrow) presented with a history of two attacks of severe abdominal pain in the past five months. On admission he had also muscular weakness and

mental confusion. His father had died following a prolonged bout of abdominal pain; even exploration had failed to reveal a cause. Therefore acute intermittent porphyria was suspected. The red color of his urine further supported this suspicion. To make the diagnosis definite, however, porphobilinogen had to be demonstrated in the urine. Any physician can look for this compound by using the Watson-Schwartz test for urinary porphobilinogen. One volume of urine is mixed with one volume of Ehrlich's aldehyde reagent, 2 volumes of saturated sodium acetate, and 2 volumes of butanol. A red color in the bottom layer, indicative of porphobilinogen, was found in the above case and strongly suggests the diagnosis of acute intermittent porphyria. This disease can be fatal; our patient died of respiratory paralysis.

Determining the pattern of inheritance

The third step in genetic counseling is determining the pattern of inheritance. The three common patterns of inheritance for single gene traits are autosomal dominant, autosomal recessive, and X-linked.

Figure 4 illustrates autosomal dominant inheritance. In these diagrams, the bars represent chromosomes and the dark spot represents an

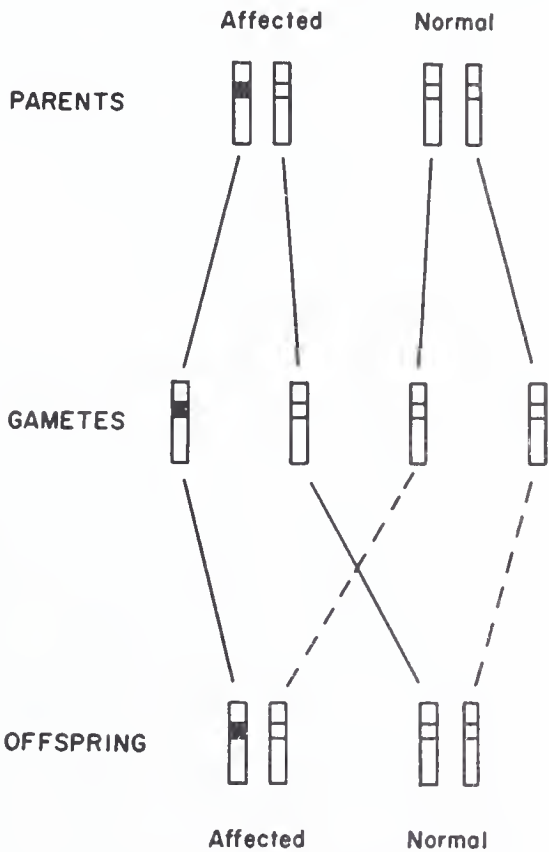
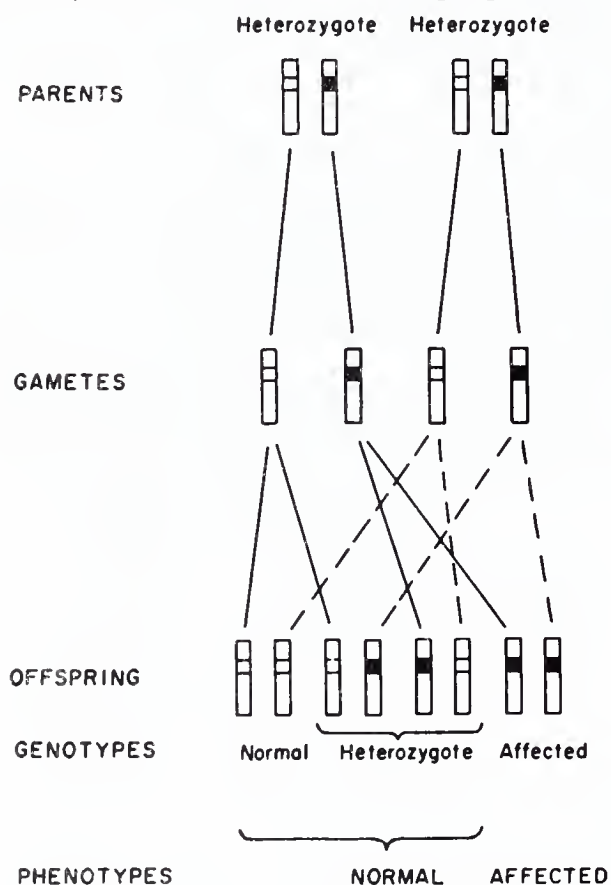


Fig. 4.

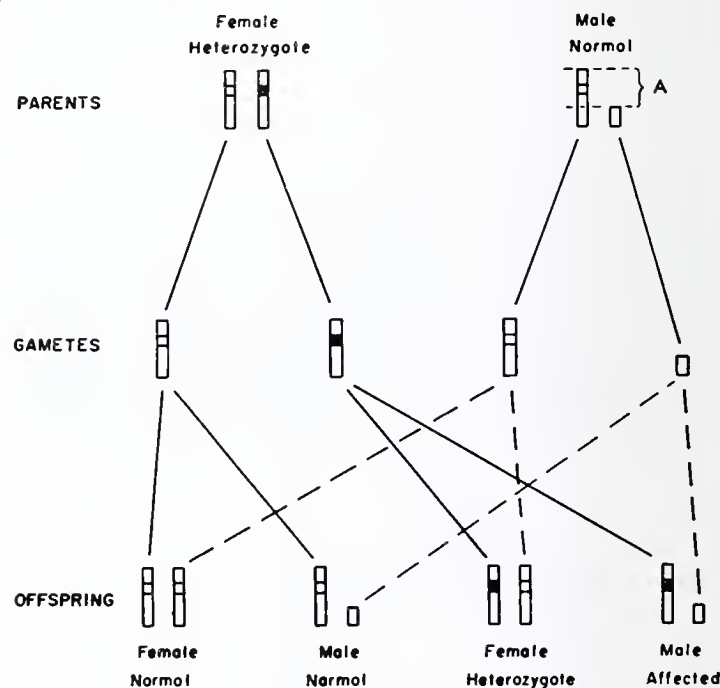
Autosomal dominant inheritance.

abnormal gene. Parents are represented in the top row, the gametes they produce on the next row, and the children resulting in the bottom row. Autosomal dominant inheritance is the most straightforward type. An affected individual produces sperm or eggs with or without the affected gene in equal numbers and therefore with each conception is equally likely to have an affected or a normal offspring. One of his parents (not shown) will also carry the gene and will be affected. On the average, half of the brothers and sisters will be affected. Several diseases we have already mentioned are examples of diseases of autosomal dominant inheritance, i.e. hereditary spherocytosis, Huntington's chorea, Marfan's syndrome, and acute intermittent porphyria.



Autosomal recessive inheritance is a type in which the affected individual has 2 defective genes, having inherited one from each parent (Fig. 5). The parents are generally asymptomatic but in some conditions can be shown to be carriers (heterozygotes) by special tests. Note that such parents can have 3 types of children, affected (with 2 abnormal genes), carriers (with 1 abnormal gene), and normal. For any given pregnancy the chances are 25% for an affected child, 50% for a carrier, and 25% for a normal child. A common disease inherited in this way is

cystic fibrosis of the pancreas. An important feature of recessive inheritance is the increased incidence of consanguinity in the families of affected members. Clearly a rare defective gene present in a family is more likely to appear in some individual in double dose if a family member marries within the family, as happened in the family illustrated in Figure 5. Always inquire about consanguinity in taking a family history. It may be an important clue to the presence of a recessive condition.



The third common form of inheritance is the X-linked type (also called "sex-linked"). This type of inheritance is familiar from the example of hemophilia: in most cases, males only are affected and females are only carriers (Fig. 6). The bars represent the sex chromosomes. The long bar represents an X chromosome and the short bar the Y chromosome. The female has two X chromosomes. The male has one X and one Y. Therefore, if the male has one defective X, there is no other X to compensate. Males get their Y chromosomes from their fathers and their X chromosome from their mother; males get hemophilia from their mothers who are carriers but usually not symptomatic. Such mothers have, on the average, normal and affected sons in equal numbers and normal and carrier daughters in equal numbers.

Helping the family adjust to the facts

The fourth step in genetic counseling is to provide the patient and his family with the

understanding necessary to make their own rational decisions based on the available facts. When, as is most often the case, the patient wants to know about his own reproductive risks, have him bring his spouse or prospective spouse to the counseling session. Decisions about reproduction involve both partners and both partners need to start with the facts.

There are five ways to help a couple: (a) relieve them of guilt feelings, ((b) make clear the meaning of probability figures, (c) help them implement their decision regarding family planning, (d) make the diagnosis in relatives, and (e) offer treatment or preventative measures, when available.

(a) Relieving feelings of guilt

It is puzzling that patients often suffer greater feelings of guilt from diseases they have inherited than from those they have acquired due to their own indiscretion, such as obesity or alcoholism. Offer reassurance that an individual is in no sense responsible for the genes he inherits.

(b) Making clear the meaning of probability figures

Make clear that Mendelian ratios are averages to be expected only with large numbers of offspring, larger than the size of the usual human family. If the first child is affected, the next child is not thereby more likely to be normal. Each pregnancy represents a fresh throw of the dice, i.e. a statistically independent event. One of

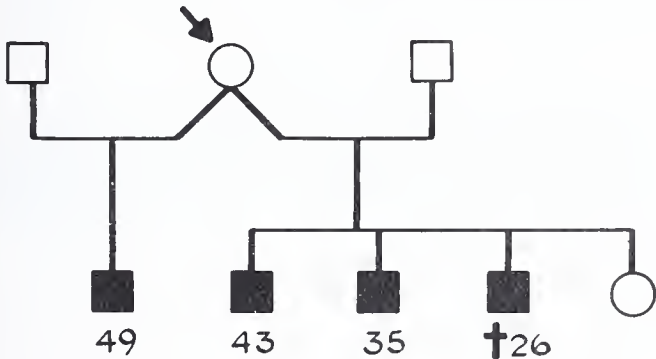


Fig. 7.

A family with pseudohypertrophic muscular dystrophy.

our patients, a carrier for pseudohypertrophic muscular dystrophy (Fig. 7, arrow) had one affected son by her first husband and three affected sons out of three by her second husband. Despite a 50% probability for each offspring in her series of four sons, all had the disease.

It may be helpful to write the patient a letter which contains all the information given in the counseling session. Patients often do not fully comprehend on the first hearing, especially if the news is unfavorable. The letter will help clarify misunderstandings and assist the patient to spread the information to other family members.

(c) Helping with family planning

If the couple decides to take the risk and have further children, they may need support in dealing with resulting anxieties. If they decide to adopt, they need guidance as to how to proceed. Artificial insemination may be suggested when a dominant gene is carried by the husband.

(d) Making the diagnosis in relatives

A 70-year-old man (Fig. 8, arrow) was admitted to our hospital because of persistent bleeding following a prostatectomy requiring 50 units of blood. He was found to be a hemophiliac, never previously diagnosed, mild

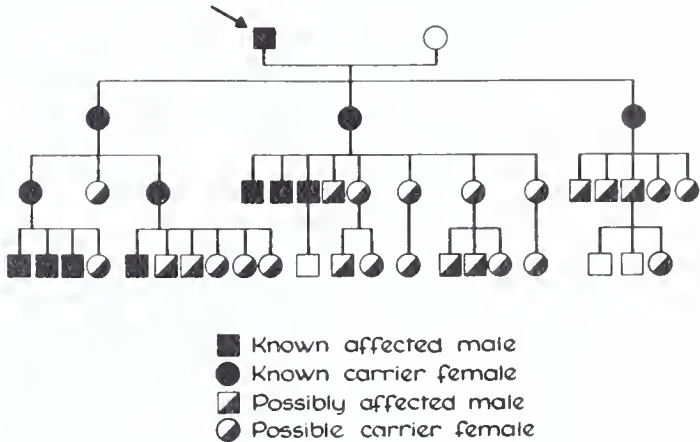


Fig. 8.

A family with hemophilia.

enough not to bleed spontaneously, but severe enough to bleed after an operation. Through him, the diagnosis was made in seven male descendents and suspected in nine more. These relatives may avoid excessive bleeding when they have surgery by forewarning their surgeons.

A patient of ours mentioned earlier died of acute intermittent porphyria. We found porphobilinogen in the urine of his asymptomatic sister. We were able to tell her to avoid alcohol and barbiturates, which are known to precipitate attacks of porphyria. Barbiturates constitute a special threat because they are often prescribed for the abdominal pain and the psychological manifestations of the disease. Knowledge about her condition will enable her not only to reduce

the number of attacks, but also to avoid useless surgery to which her father had been subjected.

(e) Offering treatment or preventive measures when available

Hereditary diseases should not be thought of as untreatable. Galactosemia represents a condition in which lactose cannot be metabolized normally. Metabolic products accumulate and injure the brain, the liver, and the lens. Begun sufficiently early, avoidance of dietary lactose permits normal development.

Glucose-6-phosphate dehydrogenase (G-6-PD) deficiency, which is estimated to afflict one hundred million people, predisposes individuals to

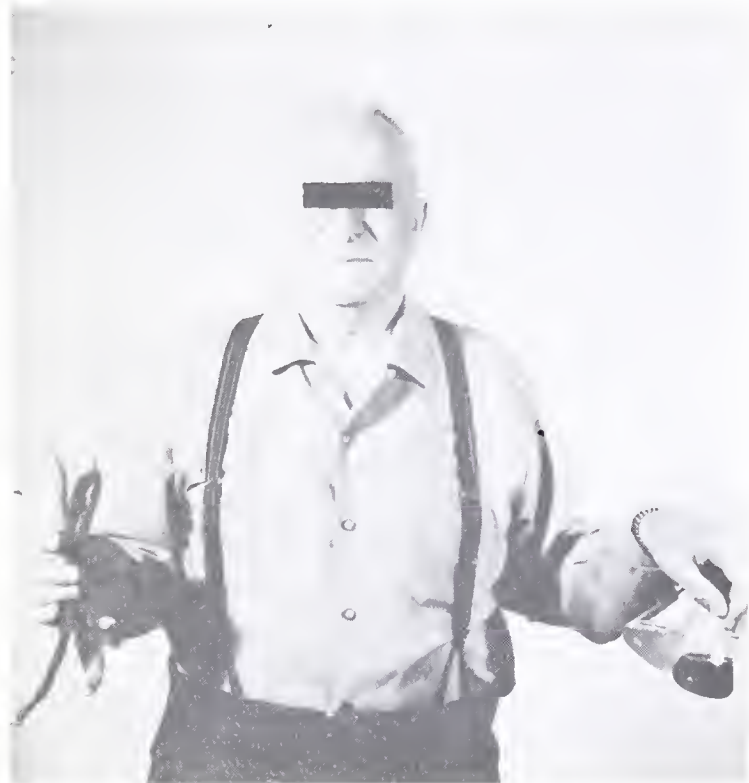


Fig. 9.

A 70 year old Sicilian with glucose-6-phosphate deficiency. He holds Fava beans in his right hand and the dark urine he passed after eating them, compared to normal urine, in his left hand.

LETTERS TO THE EDITOR (Continued)

In closing, I would say that my two years in Alaska with the U.S.P.H.S. were most rewarding and memorable. Not only do I miss the wonderful State of Alaska, but even more I miss the majority of its people; people who are pioneers in every sense of the word. I especially miss many of my colleagues of the P.H.S. With few exceptions, the physicians of the Alaska Native Health Service, both "two-year men" and career men, were dedicated and superb doctors. Many of these physicians have made great

hemolysis on exposure to certain foods and drugs. Figure 9 shows a man who had hemolysis on exposure to Fava beans, aspirin, or sulfa drugs. Avoidance of the responsible foods and drugs rendered him entirely free of symptoms.

Organ transplantation offers an approach to some genetic diseases. A 30-year-old man (Fig. 10, arrow) dying of renal disease was found on biopsy to have medullary cystic disease. Among 19 affected relatives found on family study were many who were unaware of their condition. Kidney transplantation prolonged the life, not only of the propositus, but also of several relatives who were diagnosed at an earlier and

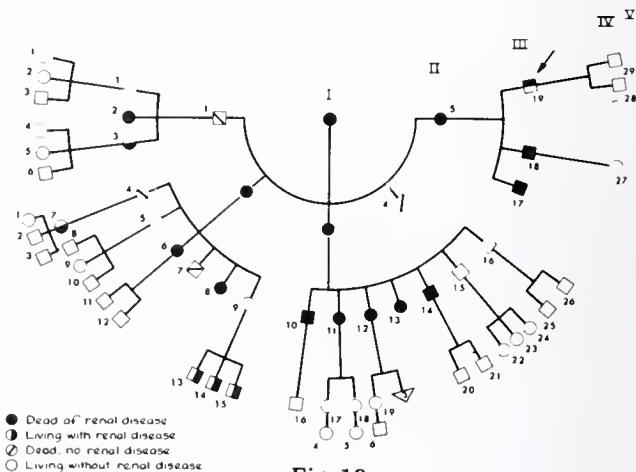


Fig. 10.

A family with medullary cystic disease.

more favorable stage in their disease as a result of this family study.

A list of centers in the world providing genetic counseling can be obtained by writing The National Foundation, 800 Second Avenue, New York, N.Y. 10017.

Acknowledgments

The author thanks the Year Book Publishers, Inc., Chicago, Ill., for permission to use material from Hsia, D.Y., *Inborn Errors of Metabolism*, 1959, for Figures 4, 5 and 6 and Dr. Kenneth Gardner, Department of Medicine, Stanford University School of Medicine, for permission to use Figure 10.

financial and other sacrifices to serve with the P.H.S. I am proud to have had the opportunity of serving with these physicians and to have played a small role in the program of the Alaska Native Health Service.

Very truly yours,

Brett B. Gutsche, M.D.
Assistant Professor of Anesthesiology
Hospital of the University of Pennsylvania

DISEASES ASSOCIATED WITH CLOTTING AND LYTIC DISORDERS OF THE BLOOD

By Glen Straatsma, M.D.

Fairbanks

During the stable state there exists in the blood a balance between those factors tending to cause coagulation and those factors tending to cause fibrinolysis. This stable state is a dynamic state in which constant, but controlled, activation of clotting as well as clot lytic mechanisms are at play. In the case of a laceration injury to the skin, bleeding occurs. This event upsets the normal balance of factors present and results in clot formation to cause hemostasis. Such an event normally has a well formed clot as its end point. Factors utilized in the formation of such a clot include platelets, prothrombin, fibrinogen, Factor V, VIII, IX, X and XI, which are consumed in the clot itself. Following clot formation, clot lysis or breakdown occurs as a result of activation of the fibrinolytic system. Thus, the event of trauma in the form of laceration is normally met with appropriate clot formation and appropriate clot lysis, eventually resulting in the return to the pre-traumatic stable state of relationship between the clotting and clot lysis system.

In this article an attempt is made to present a practical approach to the problem of hemorrhage as it occurs in disseminated intravascular coagulation and the fibrinolytic syndrome. We have purposefully avoided lengthy theoretical details to facilitate practicality and usefulness in the clinical setting.

Consumption coagulopathy or disseminated intravascular coagulation (D.I.C.) occurs in various pathological states (Table I). The pathogenesis of such a state in the clinical setting is thromboplastin activation. Because of the clot's absorption of platelets, prothrombin, fibrinogen, Factor V, VIII, IX, X and XI, the blood is left hypocoagulable and diffuse bleeding occurs in such patients. In the classical case as presented, the depletion in the blood of platelets,

prothrombin and fibrinogen will document the cause of bleeding. The therapy for such a classical defect is heparinization.

The state of fibrinolysis exists as the other clinical extreme. In the fibrinolytic syndrome abnormal activation of profibrinolysin to fibrinolysin occurs. The disease states in which the fibrinolytic syndrome are seen are listed in table II. In these disease states profibrinolysin is detectably decreased in the serum and the clot lysis time is markedly shortened in the case of pure fibrinolysis. Platelets are not diminished, the prothrombin time is normal, and the fibrinogen and fibrin are present in subnormal quantities in the plasma. In the case where the fibrinolytic system activation is the documented cause of the hemorrhagic state, alpha amino caproic acid is therapeutically indicated as an inhibitor of the fibrinolytic system.

Activation of endogenous fibrinolysin (plasminogen - plasmin) accompanies disseminated intravascular coagulation. It is the clinician's responsibility to ascertain which is the predominant entity and to treat the patient accordingly. It is not unusual that both mechanisms are contributory to the hemorrhage present, e.g. fibrin consumption in the clot as well as fibrin destruction by fibrinolysis. Table IV illustrates the laboratory values as they exist in all three possible situations.

In conclusion, we have briefly outlined the diagnostic and therapeutic implications in the case of disseminated intravascular coagulation and the fibrinolytic syndrome. It was also explained that, although either system may dominate the clinical picture, intermediate or combined system activation is not unusual. Therapeutic application should only be the end result of the combination of interpretation of available laboratory data and good clinical judgement.

TABLE I
DISEASE STATES ASSOCIATED WITH CLOTTING ALONE

1. THROMBOTIC THROMBOCYTOPENIC PURPURA
2. SCHWARZMAN PHENOMENON
3. HEMOLYTIC UREMIC SYNDROME
4. PURPURA FULMINANS
5. NEOPLASMS

TABLE II
DISEASE STATES ASSOCIATED WITH FIBRINOLYSIS ALONE

1. PROSTATIC CARCINOMA
2. POST-SURGICAL
3. NEOPLASMS

TABLE III
DISEASE STATES ASSOCIATED WITH CLOTTING AND LYTIC DISORDERS

1. SHOCK
2. ABRUPTIO PLACENTAE
3. DEAD FETUS
4. AMNIOTIC FLUID EMBOLISM
5. SEPTIC ABORTION
6. NEOPLASMS

TABLE IV

	Clot & Lysis	Clot Alone	Lysis Only
Platelets	Low	Low	Norm
Prothrombin	Low	Low	Norm
Fibrin	Low	Low	Low
Profibrinolysin	Low	Norm	Low
Clot Lysis Time	Short	Norm	Short

APPENDICITIS ASSOCIATED WITH SHIGELLA SONNEI INFECTION

By Theodore J. Phillips, M.D.

Introduction:

In the Spring of 1968, an outbreak of dysentery caused by infection with *Shigella sonnei* occurred in Sitka, Alaska. The cases occurred primarily throughout April and May with fewer noted in June. Epidemiologists from the Alaska Department of Health and Welfare and Arctic Health Research Laboratory conducted investigations during this time and have reported their findings through official reports.¹ It is the purpose of this paper to report an association of *Shigella sonnei* dysentery and acute appendicitis in two of these cases. A review of the world literature with the aid of the Alaska Health Sciences Library and the MEDLARS system of the National Library of Medicine revealed only one previous report of this association.² A report of a single case of appendicitis with *Shigella flexneri* infection was also found.³

Materials and Methods:

The Sitka Community Hospital is a twenty-five bed general hospital serving a population of approximately 6,500 residents on Baranof Island and adjoining islands in Southeast Alaska. After the appearance of the two reported cases, a search of the literature was initiated to find the incidence of this association. The hospital and office records of all patients operated for appendicitis during the *Shigella* outbreak were then reviewed. Finally, the surgical records of the hospital were reviewed to ascertain the usual incidence of surgery for acute appendicitis during each quarter of the last five years.

Case Reports:

Case No. 1 — Sitka Community Hospital No. 6272

A fifteen year old white female school child presented on April 30, 1968, with fever, nausea, diarrhea and abdominal pain. She had

experienced four or five episodes of diarrhea during the previous night. Upon admission, her temperature was 100° orally and examination revealed right lower quadrant tenderness, decreased bowel sounds, and a white blood count of 23,000. Exploratory laparotomy and appendectomy were performed that day. Edema and inflammation of the cecum and ileum were noted by the surgeon. Culture of fluid from the appendix revealed *E. coli* and *Shigella sonnei*. Pathological report on the removed appendix was "minimal acute appendicitis" with "Focal collections of polymorphonuclear leucocytes". Recovery was complicated minimally by a subcutaneous wound infection which responded to drainage on the fifth post-operative day.

Case No. 2 — Sitka Community Hospital No. 6319

A nine year old white female school child presented in the office on May 15, 1968, with a two day history of vomiting, cramps, and diarrhea. Examination revealed bilateral lower abdominal tenderness with no rigidity nor rebound. A rectal swab was obtained for culture and revealed *Shigella sonnei*. Methacycline was started orally as soon as the culture was obtained. The child improved promptly, and her mother discontinued the antibiotic after only three days because she seemed entirely well. Four days later (May 22) vomiting recurred, and on May 23 the mother called to ask if she should restart the medicine since the child was complaining of abdominal pain with no diarrhea. Examination at that time revealed tenderness and a mass in the right lower quadrant of the abdomen, temperature 100.2° orally, and white blood count 26,750. Exploratory laparotomy was performed that day, and an appendiceal abscess containing two fecaliths was drained. *Shigella sonnei* was cultured from the abscess. The patient was treated with cephalothin and was discharged on the seventh post-operative day. She was readmitted on July 16, 1968, for interval appendectomy at which time a sealed perforation was described one cm.

proximal to the tip of the appendix. *Proteus* was cultured from the appendix at this time, and the patient was discharged following uneventful recovery on the fourth post-operative day.

Three other cases of acute appendicitis were operated during the three months of the *Shigella* outbreak. All of these had diarrhea during the month preceding their appendicitis, and one exhibited diarrhea as his chief complaint when he presented with appendicitis. No bacteriologic proof of *Shigella* infection was obtained in these cases, however.

Discussion:

At the time of surgery for case No. 1, it was felt by the attending physicians that the primary problem was *Shigella* dysentery which presented symptoms mimicking appendicitis. The minimal signs of inflammation reported by the pathologist tended to confirm this impression. Case No. 2, however, presented a different picture in that actual perforation of the appendix occurred in a child who had received partial treatment for proven *Shigella* dysentery. Although definite proof of *Shigella* association in the other three cases is lacking, the clinical course of these patients resembled that of other Shigellosis patients in the community, and acute appendicitis occurred in the setting of this community wide illness. Table 1 surveys the usual occurrence of appendicitis for the years 1964-68 when no *Shigella* outbreaks were recognized. There was no apparent increase in incidence of appendicitis during the time of the outbreak.

Review of the standard texts available revealed no mention of appendicitis associated with *Shigella* dysentery. A search of the literature back to 1945 by the Alaska Health Sciences Library and further search by the National Library of Medicine MEDLARS system revealed only two articles relating closely to this subject. S. Saev reported the occurrence of similar case in Bulgaria in 1956. This was a 26 year old female who entered the hospital with a three day history of diarrhea and one day of increasing right lower quadrant pain. She was operated and found to have acute appendicitis. Diarrhea persisted after surgery and stool culture revealed *Shigella flexneri*. An outbreak of dysentery caused by this organism was occurring in the community at that time. The author concluded that appendicitis resulted from the *Shigella* infection.³

A.G. Rabin reported from Moscow, U.S.S.R.

in 1963 one case in which appendicitis developed in an 11 year old child suffering from bacteriological proven *Shigella sonnei* dysentery. He stated that during the preceding five years the combination of appendicitis and dysentery had been observed in seven patients, and he assumed more than coincidence in this association.² In neither this case nor the one reported above was *Shigella* cultured from the appendix itself.

Gonzalez, et. al., reported from the Philippines in 1962 three cases of acute appendicitis presenting with diarrhea as the predominant complaint. The fact that these represented only three of a total series of 542 cases of appendicitis (0.55%) attests to the rarity of this occurrence. No mention was made in this article of bacteriologic studies, although studies for ova and parasites were reported as negative.⁴

Three other papers report on the normal flora of the appendix and bacteriologic findings in acute appendicitis with no mention of *Shigella* organisms.^{5, 6, 7} The role of obstruction of the lumen of the appendix is stressed in one of these articles.⁷

Donald C. Collins reported from California in 1963, the summary of a 40 year study of appendicitis covering 52,692 cases with pre-operative diagnosis of appendicitis. Eight thousand five hundred fifty six (8,556) or 16.47% of these were found at operation to be other than appendicitis. Of these "mis-diagnosed" cases, 41 (or 0.058%) were reported as bacillary dysentery. No mention was made of any case of bacillary dysentery actually having proven acute appendicitis.⁸

Conclusions:

The experience in Sitka, during a known outbreak of *Shigella sonnei* dysentery indicates that acute appendicitis does occur with *Shigella* infection within the appendix. *Shigella* must be added to the list of bacterial offenders in this disease.

Diarrhea has been reported to be a very rare presenting complaint in acute appendicitis, but it can and does occur in the experience of a small town family doctor.

Enterocolitis due to *Shigella* can produce (by virtue of focal lesions in the appendix) enough signs and symptoms of acute appendicitis to make abdominal exploration necessary. (Case No. 1).

During an outbreak of any communicable disease when "everyone has the bug that's going around" and the temptation is great to diagnose

by association, the harried physician must remain alert for masquerading illness requiring entirely different management.

Table 1

Year	Quarter	Number of appendectomies for acute appendicitis	Total surgeries
1964	Jan-Mar	3	375
	Apr-Jun	5	
	Jul-Sep	4	
	Oct-Dec	3	
1965	Jan-Mar	15	372
	Apr-Jun	2	
	Jul-Sep	1	
	Oct-Dec	3	
1966	Jan-Mar	2	351
	Apr-Jun	8	
	Jul-Sep	3	
	Oct-Dec	0	
1967	Jan-Mar	7	432
	Apr-Jun	3	
	Jul-Sep	3	
	Oct-Dec	2	
1968	Jan-Mar	4	524
	Apr-Jun	12	
	Jul-Sep	4	
	Oct-Dec	5	
		3	
		17	

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- Dr. Paul S. Clark, Epidemiology Section, Alaska Department of Health and Welfare and Arctic Health Research Lab. for review and comments.
- Drs. Thomas Petty and Theodore C. Eickhoff, University of Colorado Medical Center, for review and comments.



MUKTUK MORSELS

NOME

Dr. William Carr, formerly in General Practice in Valdez, has come out of retirement to practice in Nome. He is being ably assisted by Dr. Harry R. Owens who is on loan from the USPHS hospital at Kotzebue on a temporary basis.

FAIRBANKS

Dr. James Fuzzard of Florida, a board qualified Radiologist has entered the private practice of radiology at the Fairbanks Community Hospital. The hospital coronary care unit is currently enroute and will be operating shortly. Two nurses have gone to Seattle on RMP funds to get coronary care nursing instruction. The new Fairbanks Community Hospital plans are progressing but it is anticipated that it will be too small by the time the facility funded is completed, unless the USPHS will donate funds for construction of another wing on this hospital instead of building a new and less accessible hospital at Tanana. Apparently several beds in the new Fairbanks facility will be funded by the USPHS in any case, but with the current oil boom funneling through Fairbanks, things can only get tighter unless more beds are funded in some way.

GLENNALLEN

The Faith Hospital is currently undergoing expansion. A new clinic section is being added and the acute care beds are being increased from four to eight.

SEWARD

Dr. Wiley Bland is closing his office in General Practice here to enter a radiology residency at Duke. Dr. Ernest Gentles is closing his General Practice office here and moving to the West Coast.

KENAI BOROUGH

The Peninsula General Hospital has been taken over for completion by the Kenai Peninsula Borough which has established a hospital service district. Funds have now been allocated to

proceed with modification of plans for completion of construction.

PALMER

Dr. James Ivy is planning to open an office in General Practice the first of August. Dr. Ivy served a two months locum tenens for Dr. Cunningham last summer and is currently in practice in Florida.

ANCHORAGE

Dr. Rudy J. Leong is closing his office this summer after 11 years of General Practice in Anchorage and moving to the West Coast.

Dr. James Baldauf of Pennsylvania, a board qualified Cardiologist now completing his training in Oregon, plans to open a private office for the practice of cardiology in July.

Dr. Burl Stephens, formerly of Anchorage, has completed his medical training in Washington and is currently finishing a Radiology residency at the Mayo Clinic. He plans to enter the practice of Radiology in association with Dr. Bruce Wright this October.

Dr. Joseph Bloom, a board qualified psychiatrist from Boston plans to join the Langdon Psychiatric Clinic in August. Dr. Bloom was stationed in Anchorage 1966-1968 with the U.S.P.H.S.

Vin Hoeman, husband of Dr. Grace Jansen, died last month in a tragic mountaineering accident in the Himalayas while attempting an ascent of Mt. Dhaulagiri previously considered impossible. Mr. Hoeman was a nationally recognized mountaineer, mountain rescue expert, and zoologist and at the time of his death was completing an exhaustive book-length study of the mountains of Alaska.

CORDOVA

Dr. Gayle Sacry has volunteered for a three month medical tour in Vietnam with the AMA Volunteer Physicians Program.

SITKA

Dr. Ted Phillips has announced he is leaving July 1st to accept a position in the Family Practice Department of the University of Rochester, Rochester, New York.

ALASKA STATE MEDICAL ASSOCIATION NEWS

By Robert Ogden

Representatives of Alaska State Medical Association's Legislative, Professional Insurance and Medico-Legal Committees traveled to Juneau March 26th at their own expense to testify on several bills before the Legislature. Physicians testifying were: James Lundquist, M.D., President, ASMA; Paul Isaak, M.D., President Elect, ASMA; Stan Jones, M.D., Vice President, ASMA; Rodman Wilson, M.D., Chairman, Legislative Committee, ASMA; Ed Spencer, M.D., Southeastern Councilor, ASMA; Bob Schuler, M.D., Past president, ASMA; Arndt von Hippel, M.D., Chairman, Medical-Legal Committee, ASMA; Fred Hood, M.D., Anchorage; Gary Hedges, M.D., Juneau; Bob Smalley, M.D., Juneau.

Bills that A.S.M.A. members testified on were as follows:

S.B. 148: A bill regarding malpractice actions in the state. Senator Elton Engstrom of Juneau introduced a bill whereby malpractice actions based on the negligence of a physician or dentist would be brought against the state. The A.S.M.A. endorsed the principle of the bill, but realizing that it would be difficult to pass this type of legislation, passed on a number of alternate suggestions to the Judiciary Committee of the Senate including elimination or restriction of attorney contingency fees, establishment of a medico-legal review panel, pre-trial arbitration, a shortened statute of limitations, etc. The Judiciary Committee agreed that some type of legislation was needed to control the "capriciousness" of professional insurance availability and premiums. They indicated they would assist the Alaska State Medical Association in writing and passing legislation.

H.B. 326: Regarding Medical Licensure. This bill passed the Legislature April 19, 1969 and will go into effect immediately after the Governor's signature. This bill provides the following additions and deletions from our current statutes:

1. Will give the Alaska Board of Medical Examiners the power to use the Federal Licensing Examination (FLEX). This examination is written by the Federation of States Medical Boards of the United States, Inc. The basic objectives of the FLEX examination are as follows:

- A. To provide State Medical Boards with high quality, uniform, and valid examinations for purposes of evaluating clinical competence and qualification for licensure.
 - B. To place licensure in a definite relation to modern medical education by updating state board examination procedures and providing flexibility.
 - C. To establish uniform levels of examination between these states.
 - D. To create a rational basis for interstate endorsement.
2. Repeals the Basic Science requirement for physicians in Alaska.
 3. Repeals the citizenship requirements.
 4. Adds a 90 day temporary permit for Locum Tenens who wish to assist Alaskan physicians.

C.S.S.B. 8: Regarding Air Pollution in the State. C.S.S.B. 8 passed the Legislature and was recently signed by the Governor. The bill provides for regulations to "achieve and maintain levels of air quality that will protect human health and safety, prevent injury to plant, or animal life, and promote the economic and social development of the State and facilitate the enjoyment of the natural attractions of the State." A.S.M.A. members testified for the Air Pollution Bill and encouraged its passage.

H.B. 312: Regarding Therapeutic Abortions. This was discussed with the House Committee on Health and Welfare but an official A.S.M.A. position was not presented pending a poll of the membership.

C.S.S.B. 23: Regarding determination of permissible breath, urine, or blood alcohol levels when driving a motor vehicle. The A.S.M.A.'s Legislative Committee requested the introduction of this bill and assisted Senator Lowell Thomas, Jr. in the fight for passage. The bill passed and has been signed by the Governor.

The A.S.M.A. position on medicaid was presented in February by the Legislative Committee as follows:

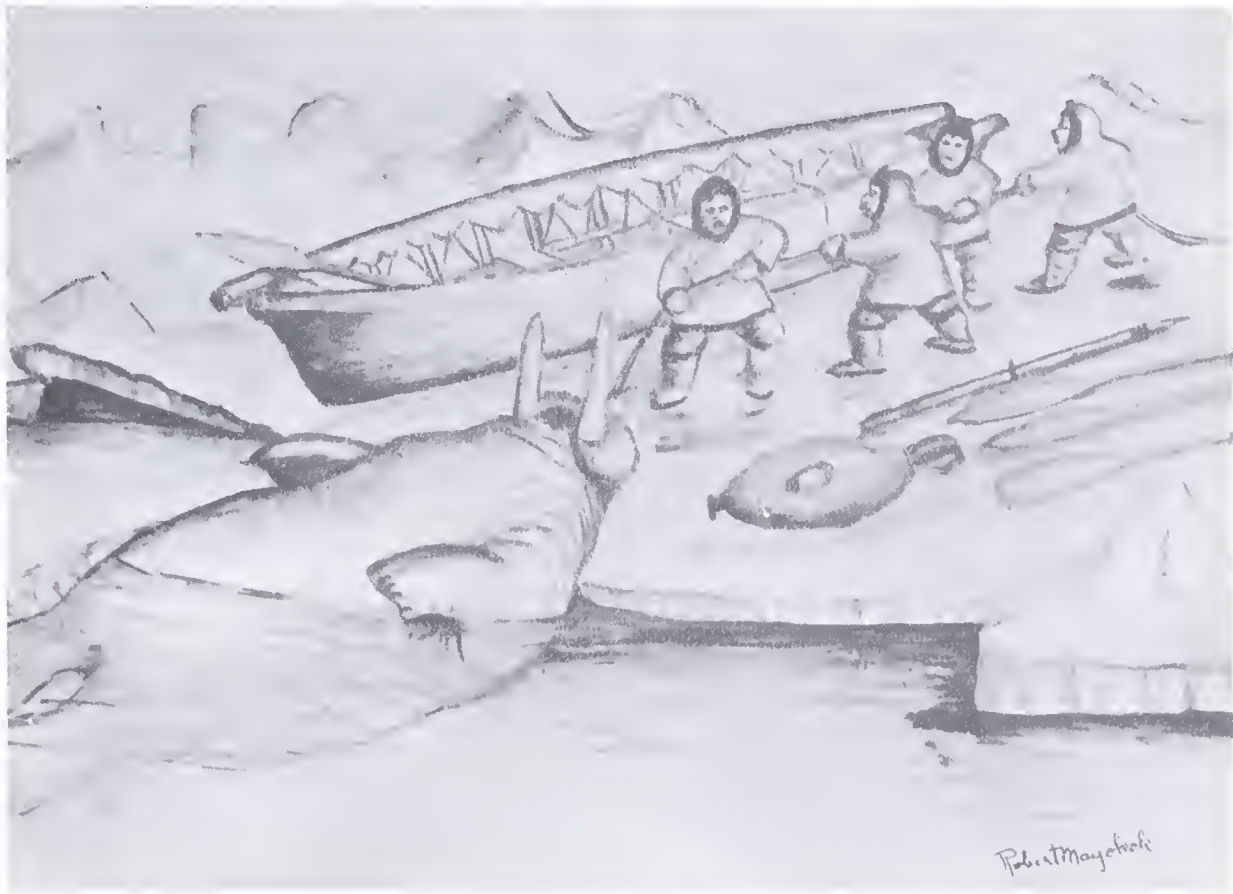
OLD AGE AND SURVIVORS INSURANCE ACT, TITLE XIX (MEDICAID) — The Alaska

State Medical Association favors the adoption by the State of Alaska of Title XIX. This legislation providing financial medicaid assistance would significantly expand the present welfare program and make a wider variety of health services available to a larger number of citizens. On the basis of the Ernst and Ernst study it appears feasible, if not advantageous, for the State of Alaska to proceed with Title XIX, at the B level (annual income of \$3,000 or less for a family of four). Continuance of the existing program is projected to cost the State 8.2 million dollars in 1970 and 13.5 million in 1975. With Title XIX, the 1970 cost would be 7.8 million, a savings of almost one half million dollars. In 1975 with Title XIX, Alaska would have a 19 million dollar program at a cost of 14 million dollars, very slightly more than continuing the present program

This cost projection includes administrative expenses which in 1975 will be approximately

1.6 million dollars. Federal standards for administration of Title XIX provide for much needed liaison and utilization review of medical welfare assistance programs by medical consultants from the private sector.

The continued existence of an extravagant, separate, federally funded medical care system for Alaskan Natives is already being questioned. As acculturation proceeds, and economic independence among Native peoples develops, the demand for private medical care will intensify and may result in attenuation of the Alaska Native Health Service. Title XIX would be a valuable resource for medical financial assistance to the Native group of citizens, who will number 140,000 by the year 2000 according to some estimates. Medicaid will also provide the administrative mechanism for a program that will strengthen and expand private medical care for all Alaskans.



BOOK REVIEWS

NOTICE OF BOOKS RECEIVED: Books will be reviewed as time and interest permit. This acknowledgement of receipt must be regarded as sufficient return for the courtesy of the sender.

Guttmacher, Alan F., M.D., *Birth Control and Love*. The MacMillan Co., Collier-MacMillan Ltd., London 337 pp. illust. 1969.

Current Therapy 1969. Edited by Howard F. Conn, M.D., W.R. Saunders Co., Philadelphia 943 pp.

Clinical Diagnosis, 14th Edition, Edited by Israel Davidshon, M.D., and John B. Henry, M.D., W. R. Saunders Co., Philadelphia, 1308 pp., illustrated 1969.

OBSTETRIC FORCEPS, by Leonard E. Laufe. Harper and Row Publisher. New York and London, 1968, 126 pages with illustrations.

This recently released book of technical use of obstetrical forceps written by the head of Western Pennsylvania Hospital in Pittsburg, Obstetric Department, is very similar to the previously published book by E. A. Davis Co., authored by Dennen, in that all the current obstetrical forceps are discussed as to their application and indications. The chapters relating to their application is well defined and simple to read and follow the instructions. The diagram and illustrations of the various forceps is good, however, in all fairness and frankness, I do not see that the book has improved any over the previously mentioned book by Dennen.

I think that the major use for this book will be in teaching institutions where there is a great volume of obstetrical patients presenting many problem deliveries which call for specialized forceps, however, the chapter on the simple application of outlet and low forceps is quite good and will contribute to the practitioner of obstetrics for familiarizing himself with their application and usage.

All in all this is a book of obstetrical forceps which has been published in 1968 and with very little improvement over a long ago published book by Dennen, and, therefore, does not make any great mark on the obstetrical profession.

Sam W. Gibson, M.D.

TODD-SANDFORD CLINICAL DIAGNOSIS BY LABORATORY METHODS. This book retains the old classic and traditional information which has through the years proven to have merit and validity in the clinical laboratory make-up. In addition, the book has been expanded in scope, to provide a comprehensive source of information on all facets of clinical pathology and reflects well current sophisticated techniques in clinical pathology. This latest edition provides a comprehensive up-to-date reference to laboratory methods as a means of clinical diagnosis.

Fred T. Strauss, M.D.
Pathologist

STRABISMUS IN CHILDREN

By: Katzin and Wilson

This small, concise, well-organized and written monograph on the subject of strabismus in childhood was a joy to read, primarily because of the very nice handling of a very complicated and controversial subject. As expected, no gross errors are evident in the small volume and the areas of controversy are ambiguous enough not to cause alarm to most parents. Of particular merit, are the short one or two paragraph summaries at the end of each chapter and the glossary of terms at the end of the book. An index is conspicuously absent, but for such a small volume it is probably not necessary.

Originally, my impression of the book was one of criticism in that it seemed to speak to a rather limited audience, however, after further thought it has begun to have a wider application. For the parent of a strabismic child, to whom I presume the book is chiefly oriented, I had first thought that the material was rather complicated and occasionally assumed a framework of knowledge which I doubted most parents possessed. After allowing the parents of several of my strabismic patients to read the book I found that it was quite nicely understood and filled a number of gaps in my explanation of the child's difficulty. One mother stated that she understood what was told to her in the office, but by the time she got home she was unable to relate the explanations to her husband.

To the general practitioner it is a very readable and short explanation of the approach an ophthalmologist takes to a squint problem. The book may also help to prevent that odious

sin still committed by numerous medical practitioners of telling parents that their child will “outgrow” crossed eyes!

In summary, I would recommend the book to anyone who is involved or who may be involved with a strabismic child. I personally plan to have several volumes in the office to be made available to interested and concerned parents or physicians.

Thomas J. Harrison, M.D.

QUESTIONS AND ANSWERS
ON CONTACT LENS PRACTICE

By: Jack Hartstein

A better name for this book could well be “Contact Lenses For Fun and Profit”. For if there would ever be a Popular Mechanics edition devoted to contact lens fitting, this would certainly be the book. The author, Dr. Jack Hartstein, having been through both schools of optometry and ophthalmology has been able to speak to the level of all who currently fit contact lenses. His experience with contact lenses is obviously tremendous and his understanding of the practical applications of the practice is comprehensive. I have read few books on contact lenses that so

nicely cover the subject in a strictly clinical point of view.

The rather unusual format he has selected is most interesting and is helpful in solving contact lense problems from a clinical point of view. The entire book is composed of questions which may be asked by the practitioner or the patient followed by a short concise answer. The list of subjects ranges from corneal physiology to the use of cosmetics with a rather thorough discussion on contact lens gadgetry in between. The index is excellent as are the helpful tables in the appendices.

The book has a very limited audience and would be of concern only to those who fit contact lenses. To the general practitioner or nonophthalmological practitioner the book would be of little use or interest. There are certainly better and shorter monographs on the approach to contact lenses available. However, as a fitter of contact lenses and as an ophthalmologist who is requested to evaluate disease processes as a result of contact lense wearing, the book has proved invaluable during the few weeks it has been my pleasure to review it. I would certainly suggest that it belongs in the library of any person who is interested in the fitting of contact lenses.

Thomas J. Harrison, M.D.

Classified Ad Section

This classified ad section is provided to give members an opportunity to make known their needs for medical and paramedical personnel. Please address all correspondence regarding insertions to: Robert G. Ogden, Executive Secretary, Alaska State Medical Association, 519 W. 8th Avenue, Anchorage, Alaska 99501.

5-YEAR BOUND VOLUMES OF ALASKA MEDICINE — ALASKA MEDICINE PRINTER, KEN WRAY'S PRINT SHOP, INC., CAN MAKE AVAILABLE THROUGH THE ALASKA STATE MEDICAL ASSOCIATION OFFICE, 519 W. 8TH AVENUE, ANCHORAGE, 277-6891, BOUND VOLUMES OF ALASKA MEDICINE (VOL. 6, NO. 1, THROUGH VOL. 10, NO. 4). COST \$10.00 (PHYSICIAN FURNISHES MAGAZINES). ORDERS MUST BE PLACED THROUGH THE A.S.M.A.OFFICE.

SOLO IN ANCHORAGE — Immediate opening for a physician interested in a solo practice in Anchorage, Alaska. Good downtown location, reasonable rent, offices and equipment all set up. See at the Medical-Dental Building, 140 East 5th Avenue, or telephone H.A. Nahorney, DMD, MSD at 272-7033.

ANCHORAGE MEDICAL AND SURGICAL CLINIC announces openings for Internist, General Practitioner, and Orthopedic Surgeon. Would like young men under 40 with military obligations fulfilled. If interested, contact: Howard G. Romig, M.D., 718 K Street, Anchorage, Alaska 99501.

INTERNIST: The Tanana Valley Medical Clinic has an opening for an internist. Would like young man under 40 with military obligations fulfilled. If interested, please contact Mr. Al Seliger, Business Manager, 1007 Noble Street, Fairbanks, Alaska.

FOR SALE: One 38-foot deep-sea cruising ketch. Excellent condition. Nearly all new equipment. Will go anywhere except on land. \$20,000. Write Bob Johnson, M.D., Box 766, Kodiak, Alaska 99615.

DOCTOR NEEDED. General physician to work in newly constructed \$100,000 Health Center serving town of 670 population. Good year round payroll. For further information write City Clerk, City of Skagway, P. O. Box 415, Skagway, Alaska.

FOR SALE — Burdick EK-111 Electrocardiograph with portable stand for \$500.00 FOB Fairbanks, Alaska. Machine is in excellent condition. Write C. William Bugh, M.D., 535 2nd Avenue, Suite No. 101, Co-op Bldg., Fairbanks, Alaska 99701 or call Area Code 907, 456-4253.

THE FAIRBANKS MEDICAL AND SURGICAL CLINIC announces opening for general practitioners, internists and pediatricians. For particulars please contact Dr. Edwin Lindig, Fairbanks Medical and Surgical Clinic, Box 1330, Fairbanks, Alaska.

ASSOCIATE GP or GP-ANESTHETIST needed at Kodiak. Rental, separate practice, division of expenses in new clinic. New 25-bed hospital opening in one month. Contact Bob Johnson, M.D., Box 766, Kodiak, Alaska 99615.

DR. PAUL ISAAK informs us that he has a number of requests from Medical Students who wish to serve a General Practice Preceptorship in Alaska. He has offered to co-ordinate such student requests with Alaska physicians. Medical Students and interested Alaska physicians should contact Paul Isaak, M.D., Box 569, Soldotna, Alaska 99669.

GENERAL PRACTITIONER WANTED — ASSOCIATE POSITION: This opening includes plans for a possible future partnership. New office with all facilities available. Contact Royce H. Morgan, M.D., 1844 W. Northern Lights Blvd., Anchorage, Alaska 99503.

POSITION AVAILABLE for Laboratory Technician preferably with X-ray experience. Salary open. Write Doctor's Clinic, 2nd & Franklin, Juneau, Alaska



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About the Cover

John A. Ireton was inspired to take this photograph with his Leica M2 using a 50 mm lens and Kodachrome X while on a September outing on Flattop Mt. near Anchorage with wife Dr. Betty Hunter, daughter Anne, friend Karen, and dog Jenny. After a lazy day of berry picking on the upper slopes, the girls seemed suddenly overcome by the warmth and brightness of fall. With gleeful "whoops" and "hollers" they went bounding into the sunlit meadow below, followed by an equally enthusiastic and baying beagle.

LETTERS TO THE EDITOR

Alaska Medicine has received the following letter from James Call and Thomas Tinstman who spent June, 1969 in Soldotna, Alaska as preceptees of Drs. Paul Isaak and Elmer Gaede at the Peninsula Medical Center. Tom Tinstman and James Call are presently senior medical students at the University of Nebraska College of Medicine in Omaha.

While in Alaska, it came to our attention that many physicians were not familiar with the preceptorship program as a part of medical education. At the University of Nebraska each student spends a minimum of four weeks with a medical practitioner in a rural area of the state of Nebraska. This physician is designated the preceptor, and the student designated the preceptee. The preceptors are approved by a committee of the faculty at the College of Medicine and the students are allowed to select the preceptor with whom they wish to spend the four weeks. Thus, the preceptor is an adjunct to the faculty of the College of Medicine and is expected to assume and participate in a teaching role.

The preceptorship program was developed in order to acquaint the students of our school with the private practice of medicine in the rural sections of Nebraska. It is hoped that the student's exposure will include not only medicine, but also office management, medical economics, and the physician's role and responsibilities within his community.

We first discovered the availability of a preceptorship in the state of Alaska from an article we read regarding Dr. Paul Isaak in the Medical World News in October, 1968. Simultaneously, Dr. Isaak was making a formal proposal to our school in order to make himself available as one of the preceptors of the University of Nebraska. As a result of his acceptance as a preceptor, we were the first students from our school to be allowed to take a preceptorship outside of our state.

Following a 3,000-mile journey, we began our senior year at the Peninsula Medical Center in Soldotna. As you all well remember, the practice of medicine within a medical school is vastly different from the practice of medicine on the private scene. During our four weeks we had complete exposure to the practice of medicine outside of the university. This included the weekly

business meetings of the clinic, discussion of community problems, and the clinic's place in the community, public health problems, and the responsibility of primary patient care.

Medical students, during their education, are well versed in the "science" of medicine and through preceptorships the opportunity is afforded the student to acquire additional strengths in the "art" of medicine. Thus, through Drs. Isaak's and Gaede's instruction, we became more familiar with the mental burdens of illness, patient counseling, and total family medicine. After our first week, it was acutely obvious that we were seeing a variety of common medical problems about which we knew little, making the old cliché "When you hear hoofbeats, think of horses, not zebras" echo in our ears. We also noted that diagnoses could be made without an audience of specialists.

As a part of Dr. Isaak's well-rounded preceptorship program, in our off-hours and frequently accompanied by Dr. Isaak, we had the opportunity to see a great part of the Kenai peninsula and the beauty and resources Alaska offers. This included traveling to Seldovia, visiting Homer, Seward, digging clams along the coast of the Cook Inlet, trout fishing, salmon fishing, and meeting and visiting with the people of that area.

Having had the opportunity to have a preceptorship, we feel that it is of tremendous value to both the student and the physician. Simultaneously, both are learning and teaching, which produces a stimulating environment for the education of the preceptor and preceptee. It is this relationship which makes the preceptorship program advantageous to the medical education of both the physician and his guest.

To those physicians in Alaska who find the preceding appealing, we would suggest a serious effort be made to attract more students from more medical schools to such programs, and thus more physicians to the growing Alaska of the future. Any interested physicians who feel we could be of help should write:

Thomas Tinstman
1402 Marbee Drive
Omaha, Nebraska

James Call
9105 Arbor
Omaha, Nebraska



MERRITT PAUL STARR, M.D.

1920-1969

Doctor Merritt Starr died in Houston in August, one month after open heart surgery. He had had three valves implanted by Doctor Denton Cooley. Merritt loved life and fought hard to survive his surgery — the odds were against him even living a month postoperatively. While critically ill and awaiting surgery, Merritt realized one of his most sought after goals — he was awarded a \$100,000.00 grant by N.I.H. to administer a cancer research project in California which he had proposed, involving the use of radioactive Boron in the therapy of cancer. He is one of few physicians in private practice to be honored by such a grant, and undoubtedly the only one in Alaska.

Merritt came by his interest in medicine, teaching, and research naturally. He was born in Winnetka, Illinois, the son of Doctor Paul Starr who was then a clinical professor at Northwestern University Medical School and now a clinical professor at Stanford. He attended Oberlin College in Wisconsin and was a Nu Sigma Nu at Northwestern Medical School. He took his internship and residency at King County Hospital in Seattle. Interns he supervised there included Vernon Cates and Bill Ivy, and his chief floor nurse on the medical service was Grace Cates. One of his students in the student nursing program was Gerrie Ivy who remembers him as a spell-binding and inspiring lecturer, even tho sometimes tardy and covered with blood or fish scales.

Alaska intrigued Merritt and he spent the summers of 1948 and 1949 working as a cannery physician. He made Alaska his permanent residence in 1950, opening his practice in internal medicine, associated with his former students Vern Cates and Bill Ivy. This association led to his becoming one of the founders of the Doctors

Clinic (now the Alaska Clinic in Anchorage) where he supervised the development of the internal medicine department.

Dr. Merritt Starr had an insatiable curiosity to find the cause of any and every disease. He went to Seward many weekends to fish, but more often on those trips he became involved in discussion of newer treatments of tuberculosis, then the scourge of Alaska. His long time friend, F. J. Phillips, was then in charge of the Seward Sanatorium, where 150 patients with active tuberculosis of some form were hospitalized. Their association resulted in important health contributions to Alaska. Dr. Starr and Dr. Phillips, with the assistance of Dr. Wilkins, reactivated a chest clinic at the Greater Anchorage Health District for outpatient treatment of tuberculosis. Along with this, new advances were made in the treatment program at the Seward Sanatorium where Doctor Starr was Chief Medical Consultant.

He approached any disease treatment problem with the thought "let's treat the cause of sickness as well as the sickness itself". He devoted much time to art, music, science and literature as well as world affairs and politics. He enjoyed hunting and fishing and was an enthusiastic boat builder.

Doctor Starr knew he was a handicapped person. He knew his heart would fail him sooner than later, yet he kept working to his physical limits at research ideas and clinical practice.

Merritt is survived by both his parents, two brothers, and his two daughters. He must be remembered as a courageous and vigorous man with great integrity and loyalty. He was selflessly motivated by compassion for the infirm and for the poor. He did as much as possible for humanity in his forty-eight years.

THE ROLE OF MEDICINE IN THE REVOLUTION IN MEDICINE

By Gerald D. Dorman, M.D.

President-Elect, American Medical Association

*(Presented at the June 1969
ASMA Meeting in Fairbanks)*

When I accepted your invitation to talk about "The Role of Medicine in the Revolution in Medicine", many things occurred to me that would fit the subject well.

I could talk about probable advances in science and how medicine will cope with organ transplants, artificial organs and such innovations as DNA control of personality.

I could discuss possible future forms of delivering medical and health care, comparing the predictable advantages of solo or partnership practice with those of all existing and conceivable types of group practice.

Or I could delve into the many complexities of financing health care, from private sources as well as governmental.

But all of those things . . . important as each of them is . . . are secondary to a more vital consideration of what medical care might be in the future.

A good example of the point I want to make was found in the trip to the moon made less than two and a half months ago by Astronauts Borman, Anders and Lovell.

The odyssey of those three men . . . made possible through the combined efforts of thousands of scientists, technicians and others . . . can be called virtually a miracle of scientific and engineering technology. In almost every respect, it was perfect. In fact, I read not long after the lunar trip that if the reliability that was built into their space ship could be built into an automobile, it would easily run for a hundred years without a single repair.

Yet with all of the triumphs of that H. G. Wellsian adventure, there was one small impediment that is pertinent to this discussion.

You recall from reports of the moon voyage that two of the men suffered bad colds during the flight. Their condition was troublesome enough that they were regularly in touch with their physician back on earth.

The contact they had with their earthbound doctor is the point I want to make.

It was not possible — or, at least, was not

permitted — for the astronauts to speak directly with their physician. Instead, they would talk to the communications room and their information would be given to the physician. He, in turn, would ask questions or give instructions to the communications officer who would relay the message to the space ship.

After the flight, the astronauts and the physician alike made it clear that such an indirect arrangement was less than satisfactory. All of them would have preferred being able to consult one another directly.

There is a lesson for all of us in that situation, whatever our individual capacity might be in the total health care field.

The lesson is this:

Where medical care is sought, and is to be provided, no matter who the people involved are . . . no matter how superb the planning that brings them together . . . no matter how reliable the facilities . . . no matter how well-trained the supporting personnel . . . and no matter how sophisticated the delivery system may be . . . if anything or anybody comes between the patient and his physician, the effectiveness of that care is reduced, and might even be obliterated.

The psychological well-being of the patient is the single most vital factor in almost every element of health treatment. Man is most vulnerable when he is sick.

Then he needs, more than at any other time, the humane attention and understanding of a trusted and knowledgeable expert. In this case, of course, that person is the physician to whom he turns voluntarily and into whose care he entrusts not just his immediate well-being, but his life itself.

Since emotional balance is such a vital factor in good health and in the success of just about every treatment, the personal relationship between the patient and his chosen physician is of over-riding importance.

Any pattern that mechanizes . . . automates . . . interrupts . . . separates . . . reduces or

de-humanizes that relationship strikes at the very foundation of good health care.

Earlier in these remarks, I said I was going to talk about what I consider to be the most vital consideration in medical care of the future. That consideration, which I have tried to illustrate, is to maintain the personal, effective relationship between each patient and his own physician...regardless of how they might have been brought together, or under what circumstances or within what environment.

Throughout recorded history, the very heart of medical care has been the close rapport between one person seeking help and another person providing it.

But sometimes that simple picture of effective medical care is lost...buried under tons of rhetoric from people inside and outside the health field about long-range planning...automation of laboratory and other procedures...comprehensive health planning...medical centers...third-party financing...governmental programs of health care and financing...super-market medicine...demonstration programs of health care...community health...and a host of other high-sounding phrases.

I am not against any of these things; nor do I, for a moment, minimize the importance of each one of them as a subject worthy of discussion.

The warning I would like to issue is that too often such discussions expand themselves to statistics of large numbers...to concern with masses of people...and with whole staffs of physicians, other health professionals, administrators, technicians and a wide variety of allied personnel.

Speakers sometimes even fall into the trap of talking about "typical" situations or "average" circumstances. What all of us need to remind ourselves is that there is no such thing as a typical patient...nor is there such a thing as practicing medicine on the average.

The delivery of medical and health care is not — and cannot be — the transporting of a huge amount of service from a large staff, taken collectively, to a mass of people, also taken collectively.

Delivery of medical and health care means taking care of one human being who is in need. And the care most often is taken by one physician, with the aid, perhaps, of one nurse, one pharmacist, one technician, one therapist or

one each of other skilled persons who provide certain necessary components of the care that single patient receives.

That is the concept all of us must keep in mind — the personal relationship of one physician with one patient, manifesting the personal responsibility of both the physician and the patient.

To provide truly effective care, it is not enough that we establish physical facilities for emergency or episodic treatment. If medical care is to be effective, we need to establish continuity of care through a continuing relationship between the patient and his physician.

Long-range planning and long-distance planning are fine, just as all of the other things I mentioned a while ago are good and are necessary. But the thing it takes to make health care programs really work is individual dedication.

If we can't develop that, then all of the brick and marble medical centers that all of the money in our nation can provide won't do the job.

Maintaining medical care as a personal service certainly is the primary role of medicine during the continuing revolution that is taking place in the over-all field of medicine.

In addition, however, the medical profession has other responsibilities. They are relatively new and they have proved relatively unwelcome to many physicians.

It is easy to see why.

Physicians have worked long and hard learning how to practice medicine in the best possible way for the benefit of their patients.

I think what most of them want more than anything else is just to be left alone so they can keep on doing what they do best. But that's not the way things are.

We physicians cannot fulfill only our primary obligation of taking care of patients on a personal level...and ignore all of the other problems, challenges and obligations that have come into being as society has grown larger, more sophisticated and more demanding.

What are some of these other responsibilities? I've already hinted at some of them. We now hear them from every side.

The public's demand for medical and health care is going to keep on growing, which means every physician will have to see more patients than ever before. That means physician productivity will have to be increased.

As medicine is accused of becoming impersonal, we must learn to spend more time

with each patient, not only to provide good scientific care, but to offer warm and meaningful human treatment of the whole man. How this can be reconciled with the need to see more people every day is a challenge that will tax the best minds in our profession.

Medical knowledge is said to be doubling every five years, which means a physician becomes obsolete if he doesn't participate in continuing education programs to stay abreast of exploding knowledge in the field.

The physician's role as a citizen is becoming more important. As highly educated professionals, we need to exert our leadership potential by taking active part in the projects and programs of civic, service and fraternal organizations working for the betterment of the community.

An important part of citizenship is taking part in grass-roots political activity. Physicians, like all other good citizens, need to spend a portion of their time in political action groups...in volunteer work for candidates and issues they support...and in establishing and maintaining personal contact with their governmental representatives at the level of the city, county, state and nation.

Finally, to list only a few of these obligations, much of the future of the medical profession and the health care field depends on participation with other individuals and organizations in planning for health care. It means helping to make a survey of existing health facilities, personnel and needs...and drawing up and setting in motion a system to make the best possible care available to every citizen of the community.

Today, and even more tomorrow, medicine and health are matters of total public concern. The question that demands an answer by the medical profession is whether we shall be leaders, partners, or followers in establishing the patterns of health care that will satisfy the growing demands of the public.

My conviction is that we really have no choice, if we want to preserve the medical profession as the essential and viable profession it is today.

If we do not become leaders — although sharing responsibility as partners with others who have a legitimate interest in health care — then we shall find that the public will assign us a

position, first, as followers...and ultimately as subordinates.

But let us not deceive ourselves that attaining a leadership position will be easy or automatic. It cannot be achieved by passing resolutions. It cannot be achieved by issuing public announcements. Although meaningful resolutions and positive announcements will be required.

Leadership is not conferred on those who merely announce they want it. It is given to those who clearly show — by their actions as well as their resolutions — that they are qualified for it and deserve it.

In a democracy, thank God, leadership is not assumed. It is earned.

If leadership is attained, it is not enough that it be exercised only within the medical profession and among its various divisions and special interests. Our leadership also must be exercised — and consequently, must be earned — among all of the many elements of society that have legitimate interest in health care...as providers, consumers, buyers or financiers.

We must, as leaders, establish mutually respectful partnerships with the allied health professions...allied technologies...administrators and governing boards of hospitals and other health care institutions...hospital personnel...medical school administrators and faculties...the research community...the health insurance industry...prepayment plans...social welfare agencies...employers...and labor unions — as well as with local, state and federal government and, equally important, the public itself.

This is not an easy challenge — this acceptance of wide ranging responsibilities, many of which are outside the actual practice of medicine. But it is an essential challenge that we must meet...and meet successfully...if medicine is to play the vital role it should play during this period of revolution in the area of medical and health care.

Physicians are the kind of people who have had the intellect, the compassion, the stamina and the heart to meet all of the crises and challenges presented to their profession through 50 centuries of distinguished history.

I am confident that today's physicians have the intellect, the compassion, the stamina and the heart to accept these newest and largest of all challenges.

MYTHOLOGY OF ALCOHOL

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*(Presented at the June 1969
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Although the psychosocial sciences have contributed a great deal to the understanding of alcoholism during the past two decades, the biomedical sciences have, unfortunately, remained in ignorance concerning this matter. The confusion and at times chaos which surrounds the diagnosis and treatment of alcoholism by the medical profession derives largely from this ignorance and from an adherence to a number of "old wives' tales" concerning the physiologic effects of alcohol, i.e., the mythology of alcohol. For members of the medical and paramedical professions to assume proper responsibility in the diagnosis and treatment of alcohol-related problems, certain concepts concerning this drug need to be demythologized.

The following are a few ideas which have permeated the medical approach to alcoholism and have contributed a good deal to our ignorance. Understanding the effects of this drug on a scientific rather than an emotionally empiric basis is important to the proper medical management of the patient.

1. *One can drink all the alcohol he wants as long as he maintains proper nutrition, and no harm will come to his physical well being.*

Unfortunately, our impression of the medical disorders related to alcoholism are based primarily on the "skid row" alcoholic in whom malnutrition and avitaminosis were prominent findings. The skid row alcoholic population actually constitutes less than 8% of the total number of persons suffering from alcoholism in the United States. If one is willing to extend his diagnosis to the middle- and upper-socioeconomic classes, then the above statement concerning eating and drinking is particularly pertinent. Recent research data and careful perusal of the old medical literature indicate strongly that

alcohol is directly toxic to many physiologic systems regardless of the state of nutrition. While malnutrition and avitaminosis certainly exacerbate this toxicity, vitamin supplements and proper nutrition in no way obviate the deleterious effect of ethyl alcohol on the body. Indeed, often the physician can approach his private patient diagnostically on the basis of the pathophysiology caused by alcohol.

2. *All alcoholics are dehydrated.*

Although the older medical literature describes the acute alcoholic as being "dropsical", and although purgation was often used to effect a loss of water from the body, during the past 30 years the ubiquitous and often indiscriminate and over-zealous use of intravenous fluids has characterized the medical management of the acute alcoholic. In 1938 the mechanism of the alcohol-induced diuresis was explained, i.e., by an alcohol-induced inhibition of the release of the antidiuretic hormone. Armed with this one scientific fact, the erroneous assumption was made that all alcoholics would become dehydrated when drinking for any length of time. An important fact has been overlooked, that is, that alcohol exerts a diuretic effect only as long as the blood alcohol level is increasing; once the blood alcohol level is stabilized or is decreasing, an antidiuresis often occurs. During the alcohol-induced diuresis, there is a loss of free water from the body via the kidneys with a retention of sodium, potassium, and chloride. This retention effects a hyperosmolality of the extracellular fluid which in turn encourages increased fluid intake. Over an extended period of time as short as 24 hours, therefore, if fluid is ingested *ad lib*, very often a positive water balance results. Recent studies in which the total body water, extracellular fluid volume, and plasma volume have been directly measured

indicate that unless protracted vomiting and/or diarrhea are complicating disorders, overhydration rather than dehydration occurs in a majority of the acute alcoholics. The overhydration is of an isosmotic nature, i.e., the fluid retention is accompanied by solute retention, thus the increased amounts of water and solute are not necessarily reflected in plasma electrolyte concentrations. A further effect of alcohol on electrolyte metabolism is to increase intracellular sodium and decrease intracellular potassium in many of the body cells including those of the central nervous system, myocardium, and skeletal and smooth muscle. This in essence can decrease the transcellular membrane potential and increase the sensitivity of these cells to various stimuli. This increased sensitivity is often augmented by the fact that alcohol causes depletion of the total exchangeable magnesium. As will be indicated later, recognition of these fluid and electrolyte changes are extremely important in the management of the acute alcoholic.

3. *Alcohol acts as a solubilizing agent to decrease serum lipids and may prevent one from developing atherosclerosis.*

Although alcohol is an excellent solvent for some fats *in vitro*, unfortunately, this effect is not found *in vivo*. Alcohol enters into the production of lipids and, indeed, apparently stimulates lipid production, especially by the liver. The excessive production of and decreased release of hepatic lipids is thought to be the prime mechanism in the development of the fatty liver so common in alcoholism. The myth that alcohol prevents atherosclerosis is based on the low incidence of the atherosclerotic process in the skid row alcoholic whose diet often is deficient in fat. If one examines closely the incidence of atherosclerosis in the middle- and upper-class heavy drinking individuals, it becomes readily apparent that there may be a close correlation between alcohol ingestion and atherosclerosis. One episode of excessive alcohol ingestion will result in hyperlipemia, primarily triglyceridemia. Drinking on a more prolonged basis also results in a hypercholesterolemia which many individuals believe may be closely related to atherosclerosis. Whatever this relationship, it is now apparent that alcohol in no way decreases serum lipids; by virtue of its effect on the liver and from its own metabolism, serum and tissue lipids actually increase. This may have important implications in the treatment and prevention of

cardiovascular disease related to excessive lipid production and deposition.

4. *Alcohol reduces the work load on the heart and thus improves cardiac efficiency.*

Because alcohol is a peripheral vasodilator, the assumption has been made that the coronary vessels share in this effect. However, recent investigation shows that alcohol either directly and/or indirectly reduces coronary flow, thus reducing cardiac efficiency. Further, alcohol impairs the uptake of free fatty acids which are the major energy substrate for the myocardium; it instead promotes the uptake of triglycerides which are not an efficient energy source. Daily alcohol ingestion for a period as short as two weeks can effect a twofold increase in the triglyceride content of the left ventricle. This metabolic change may account for the decreased contractility and decreased cardiac reserve so often seen in alcoholic patients. Also, this metabolic effect may be a promoting factor for the frequent occurrence of cardiac arrhythmias in the alcoholic. The use of alcohol in any form for the treatment of cardiovascular disease (e.g., myocardial infarction, hypertensive vascular disease) should be discouraged. Alcohol exerts no beneficial effect on the cardiovascular system. The implication of these research findings in changing management of intoxicated, traumatized patients, post-myocardial infarction patients, etc., is obvious.

5. *Alcohol builds blood, i.e., stimulates the production of blood cells.*

Although anemia and alcoholism have long been associated, the anemia has usually been explained on the basis of vitamin B12 and/or folic acid deficiency. Again, this finding has been delineated on the skid row alcoholic population. Some current medical literature advocates the use of alcohol (primarily wine and beer) for the treatment of anemia, especially in the geriatric patient. The recognition of alcohol's hematopoietic depressing activity has only recently been appreciated. Alcohol depresses bone marrow production of both the erythroid and myeloid series of cells. Often a normochromic normocytic anemia results without any evidence of vitamin deficiency. Indeed, alcohol can produce toxic changes in the erythroid series of cells similar to those seen in chloramphenicol toxicity. Patients who have an adequate vitamin and nutritional intake and who are drinking excessive amounts of alcohol can suffer from an

anemia due to an alcohol-induced suppression of total bone marrow function.

6. *Alcohol combats infection.*

This myth is not held valid by most medical persons; however, the lay public strongly believes that alcohol has bacteriostatic and hopefully bacteriocidal properties (the prevalent use of the "hot toddy"). Relying on the use of alcohol as a topical antiseptic, the assumption is often made that antiseptics obtain *in vivo* when alcohol is ingested. The alcoholic patient, whether he be skid row or upper-middle-class, is infection prone due to the depressant effect which alcohol has on the production of leukocytes and also to the depressant effect alcohol can have on gammaglobulin production.

The above represent a few of the many invalid assumptions which often direct the medical management of alcoholic patients. The physiologic effects of alcohol noted above are

unpredictable and are different in different individuals because the individual susceptibility to the pathophysiologic effects of alcohol is quite variable. The term "excessive alcohol ingestion" must be individualized on both a physiologic and psychologic basis. By replacing an empirical therapeutic approach to the medical management of the alcoholic with an approach based on recent research findings and scientific facts, the impact which the medical and paramedical personnel of this country can make on the public health problem of alcoholism is enormous. Our ignorance of one of the oldest drugs known to man, ethyl alcohol, is illustrated by the fact that if alcohol could be purchased only as a prescription item and thus would have to pass the scrutiny of the F.D.A., it would probably be out of use since there is so little known about the drug, and also the research that has been done emphasizes the toxic nature of the drug.



This picture is described on Page 116

THE ACUTE ALCOHOLIC: MEDICAL RESPONSIBILITY

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Since the time man first began to sample fermented and distilled alcoholic beverages, the problem of excessive ingestion and withdrawal therefrom has prevailed. The attitude of the medical profession toward the acute alcoholic has varied from a sympathetic and somewhat scientific approach taken by Hippocrates to an attitude of total rejection which has characterized the management of the acute alcoholic during the past 2-3 decades. The disease concept of alcoholism is now accepted by the public and importantly by our judicial system. Appreciation of the disease concept, however, by members of the medical profession is not so apparent. Because an acute medical emergency has been in many instances therapeutically ignored, in 1965 and 1966 two crucial federal court cases established medical-legal responsibility within their areas of jurisdiction for the treatment of the acute alcoholic (Easter and Driver cases). In essence these courts stated that drinking alcohol in an alcoholic is an involuntary act and the consequences of such an act should be treated and not punished. Although one can engage in the academic argument of alcoholism as a symptom or alcoholism as a disease, the die is cast; the courts have placed the responsibility for the care of the acute alcoholic under a medical aegis. To treat or not to treat the acute alcoholic is rapidly becoming a matter of medical liability. Thus, initial medical responsibility in alcoholism is the management of the acute alcoholic.

The variation in treatment approaches to the acute withdrawal syndrome from alcohol is indicative of the diagnostic and therapeutic confusion which exists. This confusion has resulted primarily because of our ignorance of the effects of the drug, alcohol, on various physiologic systems and of the sequelae of alcohol withdrawal. In light of new research in

this field the medical management of the acute alcoholic has been marked by recent innovations which are greatly expediting the detoxification process. The initial approach to the acute alcoholic must involve erasing some of the diagnostic confusion. Anyone treating this disorder has his or her own concept of "delirium tremens", and terms such as impending delirium tremens, mild delirium tremens, incipient delirium tremens, etc., are all in wide usage and tend to promote this confusion. Early investigators such as Thomas Sutton have described acute withdrawal from alcohol quite well. The classic concept is as follows: acute withdrawal can be considered an unpredictably progressive disorder beginning in Stage I — psychomotor agitation, autonomic hyperactivity such as tachycardia, hypertension, hyperhidrosis; "the shakes". If this is to progress, it will move to Stage II — hallucinations, auditory, visual, tactile, and at times olfactory; hallucinations are usually of a threatening nature; partial or total amnesia of the hallucinatory experience is common. The syndrome can then progress to Stage III — that of disorientation, delusions, delirium; these can be intermittent and transient; the delusions are seldom based on hallucinations; total or partial amnesia of this stage is common. The final stage, Stage IV, is that of seizure activity — grand mal, petit mal, or other manifestations of the bizarre electrical activity of the central nervous system seen during withdrawal. When all four stages are present, the diagnosis of delirium tremens can properly be made; however, a description of the patient, his signs and symptoms and progress of the syndrome, is much more useful in assessing his condition than the nondescript terms of delirium tremens, impending delirium tremens, etc. Other forms of toxic psychoses seen in withdrawal from alcohol such as alcoholic

hallucinoses occur far less frequently than the acute withdrawal as described above, although differentiation is often important for the proper disposition of the patient.

As legislative, judicial, ecclesiastical, and medical attitudes toward the acute alcoholic shift from a condemning to a palliative position, hospitals, emergency rooms, and clinics will be seeing persons suffering from acute withdrawal in rapidly-increasing numbers. The concept of acute withdrawal will then be extended from the skid row to one's private patient population. Fortunately, earlier forms of withdrawal will be seen and thus management will become easier. Probably 85-90% of persons suffering acute withdrawal can be diagnosed and treated on an outpatient basis. In the approach to the patient on an emergency outpatient basis, there are some important points to remember.

A. The onset and the severity of the withdrawal syndrome may not be entirely related to the amount of or duration of alcohol consumed.

B. The fermented beverages such as beer and wine do not preclude one from severe withdrawal.

C. The acute withdrawal syndrome as described above can occur at any time from the point the blood alcohol level begins to fall up to 10-12 days after the last drink. However, in most cases the syndrome will be seen within a 6-36 hour period after the cessation of drinking.

Unfortunately, the idea has prevailed in the past that it takes days, weeks, and even months to "dry out" an acute alcoholic. While such a period of time may be necessary for total recovery from the effects of ethanol, an acutely withdrawing patient can be returned to a functional status generally within a matter of hours; however, treatment concepts must be altered if this is to be effected. The following are some major areas in the therapeutic approach to the acute alcoholic.

A. **Sedation** The tendency in the past has been to over-sedate the acute alcoholic, often inducing a pharmacological somnolence which necessitated hospitalization and obviated proper serial evaluation of the patient. The minor rather than the major psychotropic drugs are effective in managing the acutely withdrawing patient. Ideally, the drug used should not produce excessive sedation, should not be hepatotoxic, should not promote cardiovascular lability such as hypotension and arrhythmias, should not cover an underlying psychotic process, and should not

impair the recovery from alcohol-induced pathophysiology. In the authors' experience the use of hydroxyzine (Vistaril) is an effective minor psychotropic and adheres closely to the above criteria. The use of any central-nervous-system-active drug alone will not result in effective, rapid detoxification. Rather it must be combined with a total medical management program.

B. **Treatment of fluid and electrolyte imbalance** Unless vomiting, diarrhea, or malnutrition are superimposed, most acute alcoholics are not dehydrated. Overhydration is a prominent concomitant, and the use of large amounts of intravenous fluids is contraindicated. The authors have found that diuresis of the patient is a useful therapeutic adjunct and often expedites recovery. Because alcohol can rapidly reduce the total exchangeable magnesium in the body, replacement doses of magnesium sulfate (2 cc of 50% solution IM every 3-4 hours) aid in restoration of the total exchangeable magnesium and reduce increased sensitivity of the central nervous system. Many investigators also believe that magnesium helps restore proper cardiac function. The use of hypertonic glucose (50 cc of 50% glucose IV) is often indicated because the blood glucose of the acutely withdrawing patient is quite labile. Alcohol depletes hepatic glycogen stores and impairs gluconeogenesis. Thus, the tendency toward hypoglycemia is a very real danger in these patients. Hypertonic glucose transiently stabilizes the blood glucose and also effects an osmotic diuresis. Ethanol frequently results in a functional thiamine deficiency, thus thiamine is quite useful, especially when glucose is administered.

C. **The use of anticonvulsants** The administration of diphenylhydantoin (Dilantin, 400 mg daily in divided doses) reduces seizure diathesis and tends to restore transcellular membrane potential by acting at the cell membrane level to promote the extrusion of sodium from the cell and the proper inclusion of potassium in the cell. This affects not only central nervous system tissue but cardiac muscle, skeletal muscle, etc.

D. **The use of antibiotics** The acute alcoholic is extremely susceptible to infection and frequently harbors a subclinical and often undiagnosed infectious process. Pulmonary and genito-urinary tract infections occur most frequently. Often leukopenia complicates the diagnostic and therapeutic picture.

By employing a comprehensive total medical

regimen in the approach to the acute alcoholic, function can be restored in these individuals in a very short period of time. Subsequent management of the patient from the standpoint of psychosocial rehabilitation can be handled by the physician, specialized alcoholism treatment centers, Alcoholics Anonymous, or other groups designed for this purpose. An important point to emphasize is that the alcoholic is incapable of responding to emotional rehabilitation until he

feels well. Restoration of physiologic balance in the acute alcoholic is tantamount to his effectively relating to any psychotherapy program. This restoration is a medical responsibility. As methods and techniques are improved to handle the pathophysiology of acute and chronic alcoholism, hopefully the ability of the physician to diagnose, treat, and possibly prevent many types of alcoholism will be enhanced.



CHITINA VALLEY

18 by 24 oil painting on masonite

This is a painting of a scene observed by the artist and Senator Gruening last fall while on a trip here together. Directly below the brow of the main mountain in the foreground is the famous Kennicott Copper mine. To the left and still this side of the near

glacier is the ghost town of McCarthy. The high snow covered mountain to the rear is Blackburn, around 14,000 feet more or less. We are looking at all this from about the 6,000 foot level.
By: Fred Machetanz.

OTITIS MEDIA IN ALASKAN ESKIMO CHILDREN: AN EPIDEMIOLOGIC REVIEW WITH OBSERVATIONS ON CONTROL^{1,2}

By James E. Maynard, M.D.³

Acute otitis media and its chronic sequelae including hearing loss are major morbidity problems among North American Indian populations. That middle ear disease is of crucial importance among Alaska natives is demonstrated by the fact that otitis media has recently been reported as the second most frequent cause of morbidity in this group¹. As early as 1956², and with later culmination in the McGrath project report of 1962³, prevalence of active otitis media in Alaska native children at time of community survey was reported to be as high as 17 percent.

The prominence of the otitis media problem in Alaska has engendered considerable interest in methods for prevention and control of this disease. From the health education point of view, the magnitude of the difficulties to be encountered are reflected in the fact that until recently most Alaska native parents did not consider otitis media in their children to be a disease; so common is the prevalence of otorrhea in their young. The educational films on this subject developed by the Alaska Department of Health and Welfare have been aimed at making parents more aware of the serious implications of recurrent otorrhea with view to enabling early detection and treatment. Control programs undertaken in the state have ranged in emphasis from early detection and aggressive treatment to advocacy of programs of mass adenotonsillectomy.

Effective prevention and control, however,

presuppose adequate and detailed knowledge, not only of the pathological and clinical aspects of this disease, but of the important epidemiologic parameters related to its occurrence.

The American literature in this regard is notably sparse, and it has only been in Great Britain, with studies of Miller and Spence⁴ at New Castle upon Tyne, and the reports of the Medical Research Council Working Party on Otitis Media in General Practice⁵, that detailed epidemiologic knowledge regarding otitis media has become available. However, relevance of the British studies to the disease as it occurs in Alaska native children may be questionable. It was with this possibility in mind, that the Arctic Health Research Center, in 1960, began its series of studies among Alaska Eskimos related to otitis media. The following review presents some of the results of these investigations together with some prevention and control implications pertaining thereto.

TABLE I*
REPORTED MORBIDITY DURING
FIRST YEAR OF LIFE

Illness type	Number	Percent of total
Infectious	1149	100
Otorrhea		83
First episode	119	18
Subsequent episodes	84	
Impetigo	35	3
Diarrhea	104	9
Meningitis	5	
Respiratory disease	665	58
Common childhood diseases	137	12
Measles	75	
Chicken pox	19	
Pertussis	42	
Roseola	1	
Noninfectious	228	17
Congenital anomaly		
excluding hernia	5	
Other noninfectious	223	
Total	1377	100

*See Reference Number 6

1. From the Arctic Health Research Center, Public Health Service, United States Department of Health, Education, and Welfare, College, Alaska.
2. Portions of this paper were presented at the Alaska State Medical Association Meeting, Fairbanks, Alaska, June 7, 1969.
3. Formerly, Chief, Epidemiology Section, Arctic Health Research Center. Presently, Chief, Phoenix Laboratories, National Communicable Disease Center, Public Health Service, United States Department of Health, Education and Welfare, Phoenix, Arizona.

One of the most striking epidemiologic observations regarding otitis media in Alaska native children is the early age of onset of disease. Table 1 shows the relative frequency of reporting of major disease categories obtained during the first year of life in a cohort of 322 Eskimo infants enrolled in the 1960-62 study of growth, morbidity, and mortality in the Bethel area⁶. Otorrhea is the second most frequent infectious illness reported, with respiratory disease being the most frequent. Although otorrhea episodes accounted for 18 percent of total reported infections, 38 percent of infants had at least one episode of otorrhea during the first year of life, and 20 percent had two or more episodes. The median age at which the first episode occurred was 6 months. However, 19 percent of the infants had an initial episode before the age of 4 months. The positive association between frequency of otitis media and frequency of respiratory disease, as demonstrated by this study, is shown in Table 2, where infants with 4 or more episodes of respiratory disease during the study year experienced a higher incidence of otorrhea episodes than did infants with fewer episodes of respiratory illness. The total incidence of 71 episodes per 100 infant years of observation is 5 times the rate of 14 episodes reported in the British Medical Council's study of otitis media in general practice.⁵

TABLE II*
FREQUENCY OF OTORRHEA IN RELATION TO FREQUENCY OF RESPIRATORY ILLNESS

Number of episodes of respiratory illness	Total infants	Total episodes of otorrhea	Mean episodes of otorrhea**
0-1	98	50	51
2-3	135	107	79
4	46	40	87
TOTAL	279***	197	71

* See Reference Number 6

** Per 100 infant years of observation.

*** Based on illness experience of initial cohort infants followed for one year.

By 1965 the original cohort above, which had been enlarged to include 643 live births, contained a sizeable proportion of children, attaining the age of 4 years; Due to death and migration only 437 of these children were available for follow-up study⁷. Of these, interval information on otitis media was analyzed and audiometric testing was accomplished on 378 children using a portable audiometer calibrated to the ISO 1964 standards. Children were classified according to averages of pure tone air hearing

thresholds at the three frequencies of 500, 1000, and 2000 cycles per second as follows: 0-25 dB, normal hearing; 26-40 dB, mild impairment; and 41 + dB, as moderate to severe impairment.

Of the 378 children, 235, or 62 percent experienced 666 episodes of otorrhea, and 65 percent of the affected children had more than one episode. In Table 3, the age at onset of the first episode of otorrhea is tabulated in modified life table form. Here, the number of children at risk in successive age groups decreases by the number of children who have had their first episode of otorrhea and by the number of children who did not complete the interval of study. The first year of age was the year of highest risk for onset of otorrhea, and of all children who had such episodes during the entire study period, 65 percent had their first episode before the first birthday, and 89 percent before the second birthday.

TABLE III*
RISK OF HAVING FIRST EPISODE OF OTORRHEA BY AGE

Age in months	No. at risk	No. with 1st episode	No. lost after interval	% with 1st episode
0-11	378	152	—	40
12-23	226	54	25	24
24-35	147	24	91	16
36-47	32	5	27	16

* See Reference Number 7

With regard to audiometry, 116 of 378 children or 31 percent had a hearing deficiency in one or both ears of 26 or greater dB. In 9 percent the hearing loss was bilateral. Six percent of the children had hearing losses in one or both ears of 41 dB. or greater. In Table 4, the positive correlation between frequency of episodes of otorrhea and measurable hearing impairment of 26 or more decibels is shown. The percent of children with hearing deficiency rose in

TABLE IV*
NUMBER AND PERCENT OF CHILDREN WITH 26+ dB HEARING DEFICIENCY BY FREQUENCY OF EPISODES OF OTORRHEA PER YEAR OF RISK.

Frequency of episodes	No. at risk	Hearing deficiency Number	Per cent
None	143	21	15
Less than one per year of risk	139	48	35
One or more per year of risk	96	47	49
Total	378	116	31

* See Reference Number 7

proportion to the frequency of episodes per year of risk. Again, as in the earlier infant study, there continued to be a marked positive correlation between frequency of otorrhea episodes and frequency of respiratory disease.

In 1965, and as an outgrowth of the studies reported above, a longitudinal investigation to further describe the epidemiologic patterns of otitis media among Eskimo children was undertaken over a one year period among 641 children under the age of 10 resident in 6 villages in the Bethel area⁸. In 4 of the villages observations were made without attempt to alter or interfere in any manner with the usual treatment procedure for otitis media as prescribed by the Public Health Service physicians at the Bethel hospital. In two villages a prescribed intensive regimen of treatment for each new recorded episode of otitis media was administered by research nurses and trained village aides. This treatment consisted of intramuscular injections of procaine penicillin G daily for 5 days, followed by an injection of benzathine penicillin on the sixth day. A 21 day course of long-acting oral sulfonamide was started on the same day as the penicillin. While drainage occurred, village aides cleaned the affected ear daily and instilled antibiotic otic drops or chloromycetin powder.

At study initiation 63 percent of the 641 children had a positive history of otitis media by medical records and interview. Of these, 87 percent had scars or perforations of the tympanic membrane. Audiometric tests performed as described above on 404 of the children revealed hearing deficiencies of 26 or greater dB in 27 percent. During the study year 275 (43 percent) of the 641 children experienced 532 episodes of otitis media. The incidence was highest for children under the age of 2, and there was no sex related differences in incidence. In all age groups the incidence was higher for children with prior positive histories of otitis media than for children without such histories.

There appeared to be no striking seasonal variation in either incidence or prevalence for the study villages. Averages of temperature and wind speed were plotted by month for the study year, but no relationship between occurrence of otitis media and these parameters could be demonstrated. More significant, however, was the lack of any apparent difference in incidence and prevalence of otitis media between the intensive treatment villages and the comparison villages.

The most important epidemiologic features of

otitis media in Alaska natives from the studies described above may be summarized as follows. Alaskan Eskimo infants have an incidence rate for otitis media which is at least 5 times the rate reported for the same age group in Great Britain. There is no sex or seasonal predilection for occurrence of the disease in the Alaska study populations. Analysis of illness frequency in relation to age, however, reveals a striking preponderance of initial attacks in the age group under one year, with decreasing frequency of initial attacks thereafter. There is an increased probability of recurrence after initial attack, and the frequency of attack is directly related to the frequency of hearing loss; which loss is already occurring as early as the fourth year of life. Frequency of episodes of respiratory disease is positively correlated with frequency of otitis media. The basic point to be emphasized is that the pathogenic processes leading to chronic otitis media and subsequent hearing deficiency are already established by the end of the first year of life, and all programs of prevention and control must take cognizance of this fact.

The role of adenotonsillectomy in the treatment and control of recurrent otitis media in children has been the subject of considerable controversy. Careful review of the U.S. and Canadian literature fails to reveal a single published adequately controlled prospective study concerned with the efficacy of this procedure. The investigations to date have often been retrospective in nature and invariably have used for a "control" comparison either the otitis media experience of the same children prior to their operation, or an age-sex matched group who are not candidates for the procedure. Both methods for choosing a control group are epidemiologically faulty since they fail to control for some of the most significant variables affecting incidence of otitis media, in the former case age, and in the latter case prior morbidity. The child whose otitis media experience post adenotonsillectomy is compared with his preoperation experience is bound to have less frequent disease after the procedure simply because he is older and our age specific incidence data show steady decreases in incidence with age. The child whose experience after operation is compared with a child who is not a candidate for the procedure is likely to have more otitis media than the control simply because he was selected for the procedure because of recurrent otitis. This effect was well demonstrated in the 6 villages

Alaska study⁸ where 70 percent of children with T & A prior to the study had one or more episodes of otorrhea during the study year while only 41 percent of the children without T & A had such episodes.

The only well controlled studies of the efficacy of T & A for recurrent otitis media to be reported in the literature have come from England. McKee⁹⁻¹⁰ has showed no demonstrable effect from tonsillectomy alone, and a small effect from adenoidectomy, which effect disappeared in case-control comparisons in the second post operative year. Mawson and colleagues¹¹ in a similar controlled study showed a reduction in frequency of tonsillitis and cervical adenitis following adenotonsillectomy, but no effect on frequency of otitis media.

Since the data presented here have shown that otitis media is a significant problem in the first year of life and that the chronic sequellae leading to hearing deficiency are often present before the fourth year, it may be additionally appropriate to ask whether adenotonsillectomy can be an effective control procedure for Alaska Eskimos where the disease is already well established before the age at which the procedure is usually done.

The possibility of preventing otitis media through the use of antibiotic prophylaxis has never been thoroughly investigated. One study in 1960 in Montana¹² compared otitis media incidence in a group of 120 Indian children receiving long acting sulfa drug three times a week with another group of 130 children not receiving such medication. The report asserted some effectiveness for the prophylactic procedure.

In 1966, the Arctic Health Research Center in cooperation with the departments of ENT and Pediatrics of the Alaska Native Medical Center, and in consultation with the Department of Pediatrics, University of Washington undertook a double blind trial of oral ampicillin as a prophylactic for otitis media among Eskimo children aged 0-6 in the 6 villages used for the 1965 epidemiologic baseline study¹³.

Diplococcus pneumoniae, *H influenza* and *streptococcus pyogenes* have been shown to be the most common organisms recovered by needle puncture from cases of suppurative otitis media prior to rupture of the tympanic membrane. Since the object of prophylaxis was to prevent initial rupture of the ear drum, choice of a prophylactic medication aimed at reducing these

organisms seemed warranted. Oral ampicillin was considered the drug of choice because of the appropriate antibacterial spectrum and the ease of administration utilizing a powder-liquid recombination that retained potency for one week without refrigeration. Both the ampicillin and an indistinguishable placebo were prepared by a licensed drug manufacturer. The ampicillin was provided at a final concentration of 125 mg per 5 cc. On an empirical basis children up to 2 1/2 years of age received 1 teaspoonful per day in a single dose and children from 2 1/2 to 6 years of age received two teaspoonsful.

Children were assigned to either placebo or medication group on a random basis. Research nurses visited the villages once a month to deliver supplies of drug and to check on current utilization by picking up unused bottles. Surveillance of otitis media, respiratory disease and diarrhea was maintained throughout the one year in which the trial took place.

Results of the randomization procedure indicated that both placebo and medication groups were alike in age and sex distribution, size of household, household environmental adequacy index, prior history of otitis media, proportion of children with T & A's, frequency of visible ear pathology at study initiation, and incidence of respiratory disease during the year prior to medication.

At the dosage levels used, diarrhea did not present a problem in the medication or the placebo group. Incidence of acute respiratory disease during the study year was similar for both the medication and placebo groups. The number of penicillin shots given during the study year for treatment of illnesses other than otitis media was also similar for the two groups.

TABLE V*
INCIDENCE OF OTITIS MEDIA
BY MEDICATION GROUP

Group	No. children	Total episodes	Incidence/100CYO
Ampicillin	173	73	42
Placebo	191	151	79

* See Reference Number 13

TABLE VI*
FREQUENCY OF OTITIS MEDIA
BY MEDICATION GROUP

Group	Number children	No. \geq 1 or more episodes	%	No. \geq 3 or more episodes	%
Ampicillin	173	42	24	8	5
Placebo	191	76	40	20	11

* See Reference Number 13

In Tables 5 and 6, data on otitis media during the study year by medication group is given. Table 6 shows the incidence of otitis media in the placebo group per 100 child years of observation to be almost double that of the medication group. Table 7 presents the data in a somewhat different way, showing that 40 percent of the placebo group had one or more episodes of otitis media as compared with 24 percent of the medication group. Eleven percent of children in the placebo group had 3 or more episodes during the study year as compared to 5 percent in the medication group. In both these tables the efficacy of ampicillin approaches 50 percent, that is, ampicillin administration prevented about one half of the episodes that otherwise might have occurred.

We would cautiously interpret these results to indicate that under rigidly controlled circumstances and in well chosen target groups, use of ampicillin as a prophylactic for recurrent otitis media may successfully reduce the frequency of illness, and possibly the subsequent hearing loss which is dependent upon such frequency. We would not recommend such prophylaxis on a mass basis for all age groups. Rather, it might be possible to selectively choose

high risk age groups for administration of ampicillin during a defined period of time, say from infancy through the second or third year of life only.

In summary, otitis media with its chronic sequellae including hearing loss, is one of the most important causes of morbidity among Alaska native children. In the populations studied, there has been no sex or seasonal predilection in its occurrence. Risk of initial attack is highest in the age group under one year with decreasing risk thereafter. There is an increased probability of recurrence after initial attack and the frequency of attack is directly related to frequency of hearing loss. Significant hearing loss occurs as early as the fourth year of life. The effect of adenotonsillectomy as a control measure for recurrent otitis media on the basis of the published literature to date and in face of the early onset of disease in the Alaska study populations must remain open to question. Prophylactic administration of ampicillin has been shown to reduce attacks of otitis media by as much as 50 percent in a double blind placebo administered prospective study. However its use as a preventive measure should be considered only under rigidly defined conditions.

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Dr. Fritz Comments

Dear Sir,

You asked me to discuss James E. Maynard, M.D.'s paper entitled "Otitis Media in Alaskan Eskimo Children: An Epidemiologic Review with Observations on Control".

This paper represents one in a long series which for lack of a better phrase constitute the "Party Line" of the United States Public Health Service physicians regarding the influence of large and infected tonsils and adenoids on the development of acute and chronic suppurative otitis media and such dreaded complications of the latter as mastoiditis, meningitis, brain abscess, and death.

It seems to be the considered opinion of many physicians, both in and outside the United States Public Health Service, that the removal of tonsils and adenoids is necessarily ritualistic, very dangerous in the young, and that it is a hidebound, obsolete type of surgery perpetuated by ear, nose and throat men, sometimes through ignorance, and lamentably because it supplies a handsome living.

The appalling ignorance of physicians inside and outside the Service cannot be entirely blamed upon them. Some fault at least must be borne by those of us who teach otolaryngology in the medical schools or post-graduate groups such as the Academy of General Practice and such organizations dedicated to the improvement of otolaryngological knowledge as the Academy of Ophthalmology and Otolaryngology.

All otolaryngologists recognize very well that the ideal in this situation, belatedly acknowledged the number one medical problem among Alaskan Natives, would be to find some non-surgical modality by which suppurative middle ear disease and its sequelae could be controlled; something simpler, less risky, and more efficient than the removal of tonsils and adenoids where these operations are indicated.

So far nothing has been found and this paper of Maynard's certainly substantiates that the millennium has not arrived nor is it even in sight.

This paper, in short, I found a rehash of the same old statistical analysis that makes many pediatricians and many bureaucratic physicians feel justified in withholding an important operation when indicated at the time when it will do the most good in spite of many observations made in the literature over many decades. It is an example of therapy by statistics.

Dr. Maynard perhaps feels that statistics are going to solve the situation. Statistics never cured anything.

Among children, the removal of tonsils and adenoids is indicated when there is depression of hearing complicating the common cold, acute suppurative otitis media without rupture of the drum complicating or following the common cold, a substantiated history of otitis media with or without a ruptured ear drum, repeated attacks of suppurative otitis media, a perforated ear drum following the above, a perforated ear drum through which an intermittent discharge appears from time to time usually with a cold, chronic discharge from the middle ear, and, finally, chronic foul discharge from a middle ear where there remains hardly any drum in evidence at all.

As Maynard says, the longer the operation is put off the worse the results are in diminishing the number and severity of attacks, yet he wishes to reduce the good effect of this operation when indicated by delaying it further. Nevertheless, it has been the observation of many well-trained and experienced ENT men, even where a dry or intermittently discharging middle ear is found, that the removal of tonsils and adenoids often brings about a resolution of the condition and permits healing of the perforation.

Throughout Alaska I have seen thousands of youngsters whose hearing had been estimated through the medium of audiograms. Among them have been scores of youngsters whose audiograms were absolutely worthless because the external canals were jammed with wax, inspissated pus, dirt, desquamated skin, and other debris. Unless each individual patient is examined by somebody who knows what he is looking at, the significance of mass audiometry is seriously impaired.

I have also noted on frequent occasions on children's charts the notation "ear drums normal". Yet when I have examined these ears, often within hours, sometimes within days of these notations signed by physicians, I couldn't see the ear drum because the canal was jammed with wax or other substances making the ear drum invisible.

Dr. Richard Voorhees, otologist from Seattle who was up here recently, told me the other day that he had made the same observation frequently, not only in Alaska, but also in Seattle.

Note on page five at the end of the second paragraph where Maynard says "village aides . . . cleaned the affected ear daily and instilled antibiotic drops or chloromycetin powder" (!)

In my experience, the average United States Public Health Service as well as other physician either doesn't know how or is unwilling to take the time to clean out a patient's ear. And the so-called cleansing done by an untrained village aide is a statement that under the circumstances has absolutely no significance whatsoever. It is not a double blind study so much as a case of the blind leading the blind.

In an acutely inflamed ear with a perforation of the drum the instillation of antibiotic drops is a waste of time and the use of any form of hydrogen peroxide in the acute phase almost guarantees that the suppuration will be driven by bubbling action of hydrogen on pus from the middle ear up into the mastoid process which is something one wishes at all costs to avoid.

The use of chloromycetin powder or any other powder during this phase, of course, results in a plug of material that closely resembles hardened concrete and frequently requires general anesthesia for its removal. The practice of this barbaric form of treatment at the hands of physician, nurse, or aide shows ignorance of the physiology, pharmacology, and pathology that can only be described as abysmal.

Further on page five the statement appears "the usual treatment procedure for otitis media as prescribed by the Public Health Service physicians at the Bethel Hospital". From personal observation, the "usual" treatment varies as the physicians change during their tenure here in the state. There is no standard treatment, would to heaven that there were and that is was based on knowledge of otology and not statistical analyses of what happened someplace in Great Britain.

The third paragraph on page eight demolishes completely any value that this paper might have by the following statement: "where the disease is already well-established before the age at which this procedure is usually done". The tragedy here is that it is usually done too late. And all the statistical material on the preceding and following pages bears this out. It is absolutely unrecognized by the author that there is no "age" when the removal of tonsils and adenoids should be done, any more than there is an age when one operates for acute appendicitis. In other words, if a seven month old infant has a five months' history of repeated attacks of otitis media he should have his adenoids and tonsils removed. If he begins having symptoms at three, four, five, six, seven, eight, or eighteen years of age, the operation should be undertaken then. But persisting in the delusion that there is some particular age when the operation should be undertaken again shows abysmal ignorance of the pathology, physiology, anatomy, and pharmacology of acute suppurative otitis media, its complications, and its sequelae.

To make things a little more understandable what is being discussed should not be called a T&A program. What should be discussed is the preservation of hearing and the prevention of its loss. The removal of tonsils and adenoids when indicated at whatever age, providing of course that there are no constitutional or other reasons contraindicating the disease, is the only thing in the present state of our knowledge that is going to wipe out the number one problem among the Natives of Alaska, namely deafness.

In other words, our author recognizes that a T&A will not cure all forms of deafness in Alaskan children, but does not realize that there is no magical age and that the operation should be done when first indicated.

Yours sincerely,
Milo H. Fritz, M.D.

MUKTUK MORSELS

NOME

Dr. William Carr has closed his general practice here and is again retired. Dr. Harry Owens who was on loan to the Maynard-McDougall Methodist Hospital from the U.S.P.H.S. in Kotzebue has also left the area. Pending "permanent" staffing arrangements the U.S.P.H.S. is providing a temporary physician at the hospital, which as a minimum needs two qualified men to provide adequate emergency plus preventive medical care for the area.

Staffing problems and arrangements in this only non-government hospital in the Northern Boondocks* should be of uncommon interest to the medical profession in Alaska. Despite a good (but not great) \$25,000 - \$30,000 salary, good and free housing, and adequate school and hospital facilities, Nome has been under-or temporarily-staffed for much of this decade. During most of this time Kotzebue area residents have received consistently better medical care through the U.S.P.H.S. hospital there.

While "private" medicine can point with pride to obvious efficiency and to individual physician responsibility to the individual patient, as well as decry along with some of the Natives, the constantly changing and not always optimal staffing of the U.S.P.H.S., the fact remains that young and usually eager and well-trained physicians are regularly and reliably available to the poverty bush areas only through the U.S.P.H.S.**

It is evident that many physicians enter the P.H.S. to avoid military service. Rarely do they feel their bush service time wasted, however, and a surprisingly large percentage return to the state in private practice.

Many persons concerned with the inequities of distribution of medical care to urban and rural poverty areas have suggested a mandatory pre-residency or pre-practice period of poverty area service for the young medical graduate. If properly developed, such a program could greatly broaden the physician while providing essential

*One definition: Cannot be reached by highway or regularly scheduled ferry service.

**I should add that the U.S.P.H.S. controls the medical purse strings and "calls the shots" for all poverty bush areas in Alaska, including Nome.

medical services. Hopefully, it would often lead to a voluntary lifetime of satisfying medical work in an area that the young physician would otherwise never have been exposed to. After all, the joys of medical practice are based on a satisfying professional relationship with one's patients, and with current welfare programs one can make a decent living in many otherwise impossibly impoverished areas. A comparable plan has been in effect for many years in Mexico, and I note that Dr. Roger Egeberg has mentioned such a program as one possible H.E.W. solution to current inequities of medical care distribution. Just in case Dr. Egeberg is listening, however, I will hasten to add that the frustrations and problems of serving under a petrified government aristocracy could be largely avoided if funds from applicable relief or welfare agencies were made regularly available to the physician on a fee for service or contract basis. Maximal local autonomy must be developed to avoid the recurring problems of medical care provided under the direction of the least informed, most out-of-practice, and farthest-away physician possible.

Between the land claims and the pressure on the B.I.A. educational system to switch to state operated schools there will likely be significant financial and educational changes affecting much of the Native population in coming years.

BETHEL

Dr. Paul Eneboe of Homer, chairman of the A.S.M.A. Bush Medicine Committee, was elected (as A.S.M.A. representative) to the permanent Board of Directors of the Yukon-Kuskokwim Health Corporation at the organizational meeting of this O.E.O. subsidized health corporation in early August. A majority of the directors of this corporation are Eskimos nominated by the Council of Village Presidents (currently directed by Moses Paukan of St. Mary's). These men are greatly concerned with village health problems in the 57 villages of the Bethel Health District. If nothing else is accomplished, this O.E.O. project will at least add \$350,000 to the yearly economy of the area. It is to be hoped, however, that increased local control of health services and other projects will eventually reduce waste and help relate government activities to local

conditions. For example, the Kuskokwim Valley Native Association has taken over local welfare payments from the B.I.A. and plans to investigate each recipient to see if he has exerted his best efforts for self-support before approving his support payments. Also the Health Corporation mentioned above plans to hire a physician director at about \$25,000 per year and is now taking applications (contact John Shively at The Alaska Federation of Natives' office, Anchorage, Alaska). Another example is the new Home Owners' Association of Bethel which plans monthly inspections of all new homes constructed in the present low income housing project to advise on use and to control abuse of these homes.

Meanwhile, a recurring problem for the health aides in the villages is that they often cannot use the B.I.A. school radios during the summer months for emergency health messages, because the buildings are locked. This chronic and often dangerous example of the difficulty in getting two government agencies to cooperate, leaves one wondering whether each government agency must buy its own \$6,000.00 radio in each village, or whether the coordination at the local level should not be given back to the Eskimos who can see the problem every day and could easily coordinate the facilities.

Many examples of such idiocy at a distance are available to the casual observer of Eskimo village life, but outstanding ones that stick in the mind include villages where the only safe and ample water supply in the village is restricted to the use of B.I.A. school teachers and students, or where the relatively palatial B.I.A. buildings lie idle except during class time while necessary community activities suffer for want of space. The stories are repetitive and endless, the case for shifting governmental responsibility to competent local organizations of those to be governed is strong. The role of government as a servant of all the people needs constant reemphasis. We pay the piper but they are not playing our song.

FAIRBANKS

Dr. William Bugh has closed his private office in general practice. His plans are currently indefinite.

Dr. John Noyes has a second child, first son, and has moved to Seward.

Dr. William Kinn has moved from the Fairbanks Clinic into a private office for the practice of ophthalmology.

Dr. John T. Adams of Florida has joined the Fairbanks Clinic in general practice.

Dr. Sharadkumar Dicksheet of India plans to join the Fairbanks Clinic in ophthalmology in September. Dr. Dicksheet was previously in practice in Detroit.

KENAI PENINSULA

The enormous fire raging here has been on top of the news but fortunately was not a medical disaster. In fact, Dr. Elmer Gaede reported abnormally light medical demands during the blaze, apparently due to traffic restrictions and road closures. Although 80-100 miles away, Anchorage, when downwind, had very limited visibility and the choking feeling that makes our normally pure air doubly sweet. Incidentally, a good air pollution control bill (S.B.8) was passed during the last legislature (with a lobbying assist from your medical society representatives) to keep it that way.

HOMER

Dr. Paul Eneboe is pleased with the way his medical student preceptorship program is working.

SEWARD

Dr. John Noyes has moved here from Fairbanks and is opening a private office in general practice.

SOLDOTNA

Special assessment taxes are currently being paid so that work may resume on the Peninsula General Hospital. Dr. Elaine Riegel is currently doing another locum tenens here while on vacation from her pediatric residency in Iowa. The student preceptorship program here continues successful (see letters to the editor) and, it is hoped, will stimulate more physicians such as Dr. Riegel to return to medical practice in Alaska after completion of their training.

GLENNALLEN

Dr. Chester Schneider has moved to New Jersey for a one year Sabbatical from his general practice here.

ANCHORAGE

There are many new physicians entering medical practice here this summer.

Dr. Jon Aase is expected to return to Alaska and take over as Coordinator for the Regional Medical Program in Alaska. He also plans a part-time practice in his specialty of pediatrics.

Dr. James A. Baldauf has opened his private office for the practice of cardiology and internal medicine here. Dr. Baldauf is Board Certified in Internal Medicine and Board Qualified in Cardiology, having just completed his training in cardiology at the University of Oregon.

Dr. Estol Belflower has closed his private office in general practice and has returned to Georgia for a residency in radiology.

Dr. Joseph D. Bloom of Boston has joined the Langdon Psychiatric Clinic. A Board Eligible psychiatrist, Dr. Bloom was recently stationed in Anchorage with the U.S.P.H.S.

Dr. William C. Compton of Cincinnati, Board Qualified in obstetrics and gynecology, has opened private offices here in OB-GYN. Dr. Compton recently completed his training at the University of Cincinnati.

Dr. Richard Curtis has returned to general practice at the Alaska Clinic (formerly Doctors Clinic, not to be confused with The Alaskan Clinic of Fairbanks which is staffed by Drs. Storrs and Stuck).

Dr. Michael Leary Cusack of Illinois, a Board Eligible dermatologist has opened private offices here, doubling the skin specialist population.

Dr. Clyde F. Deal has moved his office in general surgery from the Anchorage Clinic to enter private practice at the College Medical Center.

Dr. Robert Frasier has returned to his State Tuberculosis Control position after two years in Denver. His wife Dr. Shirley Frasier plans to rejoin the Alaska Clinic in Neurology, having completed her neurological studies in Denver.

Dr. John D. Gibbons of Pennsylvania has joined Dr. James Coin on the radiology staff of the Alaska Clinic. Dr. Gibbons is Board Certified in Diagnostic Radiology.

Dr. Josef Kurt Mikolaschek of Colorado has joined the Alaska Clinic in general practice.

Dr. Robert E. Stelle has closed his general practice office at the Alaska Clinic.

Dr. Walter O. Tofani of New York has joined the Alaska Clinic in urology. Dr. Tofani is Board Eligible in urology, having graduated from the

University of Zurich and completed his urology training at Long Island College Hospital in Brooklyn.

Doctor Augustin Gombart of Maryland has joined the Anchorage Clinic in general practice.

Doctor Clarence J. Little of Arkansas has joined the Alaska Clinic in general practice. Dr. Little was most recently stationed at Fort Wainwright in Fairbanks.

Doctor Rudy Leong has closed his general practice offices here. His new address is The Permanente Medical Group, 27400 Hesperian Blvd., Hayward, California 94545.

CORDOVA

Dr. Gayle Sacry has returned from his two month tour as a volunteer physician in Viet Nam. He reports, "My experiences in Viet Nam were very worth-while. I took care of an infectious disease ward that averaged about forty bubonic plague patients and a TB ward of 100 patients. Also I did work in the surgical department caring for casualties. I was not able to accomplish quite as much as I expected because of the slow pace at which everyone works in Viet Nam. The educational opportunity was very valuable. I certainly do not have any answers about the war, but sure know a lot more about it. I'm glad I was able to go."

KODIAK

That great outdoor drama, "The Cry of the Wild Ram" on the life and times of Lord Baranof has completed another successful season here, with Dr. Bob Johnson prominent in the cast as usual. Dr. Johnson is also happy with his student preceptorship program and states that the new law for temporary licensure has made it much easier to get locum tenens assistance. In fact he reports many recent inquiries from willing physicians in other states.

JUNEAU

Dr. Henry Akiyama reports that 15 of the 40 nurses who attended his weekly coronary care course from February to July have taken the final examination, with a grade average of 80. Dr. Akiyama expressed gratitude to the RMP and the Alaska Heart Association for providing course materials and audiovisual tapes.

PETERSBURG

Dr. Dale Cloyd of Ohio has opened a private office here in general practice. Dr. Helen Schmitt closed her temporary surgical practice here and entered medical mission work abroad.

ACTIONS TAKEN BY THE AMA HOUSE OF DELEGATES

*Annual Convention, July 13-17, 1969
New York City*

SUBSTITUTE RESOLUTION (72) ADOPTED

Whereas, There is increasing evidence implicating cigarette smoking in the pathogenesis of chronic obstructive and pulmonary disease, lung cancer and cardiovascular disease; and

Whereas, The Surgeon General of the United States estimates that each year in the United States 300,000 excess deaths and several million extra cases of serious illness and disability occur which are causally related to cigarette smoking; and

Whereas, The American Medical Association is concerned in all matters relating to public health; therefore be it

Resolved, That the American Medical Association again urge its members to play a major role against cigarette smoking by personal example and by advice regarding the health hazards of smoking; and be it further

Resolved, That the American Medical Association take a strong stand against smoking by every means at its command; and be it further

Resolved, That, through appropriate channels, the American Medical Association indicate to the Congress of the United States the incongruity of the expenditure of tax dollars to promote the production and sale of tobacco while at the same time spending other tax dollars to discourage cigarette smoking because of its hazard to health.

RESOLUTION 119 CONDEMNATION OF CHIROPRACTIC

Resolution 119 called for the House of Delegates to formally commend the Department of Health, Education, and Welfare and the National Council of Senior Citizens for their forthright positions in opposition to chiropractic. It also urged state and local medical societies to fulfill their obligation to point out the deficiencies and dangers of chiropractic to the public. Finally, it noted the important action of the United States Supreme Court in affirming the federal court decision holding that a state may refuse to license chiropractors unless they meet the same standards of education and training as doctors of medicine. (England vs. La. State Board of Medical Examiners)

The documented findings of HEW and the Council of Senior Citizens, and the action of the Supreme Court reinforced and supplemented the AMA's long-term declaration that chiropractic is an unscientific cult whose practitioners lack the training and background to diagnose and treat human disease. Physicians and medical societies now have strong new supporting documentation to take to state and national legislative bodies and the public to back AMA's stand. The result should be a public better informed about health care.

DENVER

The A.M.A. clinical convention will be held in Denver, Colorado, November 30 through December 3, 1969.



Rodman Wilson, M.D.
Physician of the Year

ALASKA STATE MEDICAL ASSOCIATION

24th ANNUAL CONVENTION

June 4-7, 1969

Fairbanks, Alaska



Robert Wilkins, M.D.
*1969 Physician Award for
Community Service*

By Robert Ogden

ASMA Executive Secretary

The Twenty-Fourth Annual Convention of the Alaska State Medical Association is now history. Ninety-two physicians, sixty-three exhibitors, and seventy-two guests registered during the 4-day meeting. A number of out-of-state physicians and in-state nurses attended this year's meeting.

The Physician of the Year and the 1969 Physician Award for Community Service were the high points of the Annual Banquet. Rodman Wilson, M.D., of Anchorage was honored as the physician of the year for his work over the years in health legislation. In his presentation to Dr. Wilson, James A. Lundquist, M.D., 1968-69 A.S.M.A. President said Dr. Wilson is a "Physician's physician; one who, while guarding the integrity of the profession, seeks through legislative means to protect both his colleagues and his patients".

Robert Wilkins, M.D. of Anchorage received the 1969 Physician Award for Community Service. Over and above his busy practice, Dr. Wilkins has for years participated actively in a number of public service organizations in Anchorage, i.e. Chairman of the Health and Welfare Committee of Operation Breakthrough, a very active program of the Anchorage Chamber of Commerce; Executive Director, Anchorage

Concert Association; member of the State Comprehensive Health Planning Advisory Council and State Alcoholic Advisory Council. The list goes on; it is known by those close to him that at least five nights a week are contributed to community activities.

The scientific sessions of the meeting were well attended by physicians and nurses. The program was diversified with subjects of interest to all. We were again fortunate to have very outstanding speakers.

The following is a summary of the Resolutions and important action taken by the Association. This summary is published so that A.S.M.A. membership may be advised, in brief, of the action taken by the Association. It covers only major actions and is not intended as a detailed report. Complete minutes of the meeting have been sent to each member of the Association.

RESOLUTIONS 1-69, 3-69, and 4-69 are regarding Professional Liability Insurance (malpractice). The resolutions call for the following:

1. Formation of a Medico-legal Review Panel.
2. Abolishment of attorney's contingency fees in malpractice cases.
3. State underwritten professional liability insurance.

RESOLUTIONS 5-69, 6-69, and 10-69 requests establishment of a Welfare office in Kenai:

1. Develop a State-wide family Planning program in conjunction with local communities.

2. Public Education of the importance of rubella immunization.

RESOLUTION 8-69 "Abortion" as quoted in its entirety:

"RESOLVED, that Alaska law be changed to declare that the artificial interruption of pregnancy by a licensed physician is a part of the practice of medicine and is not subject to criminal law."

RESOLUTION 9-69 Regarding contract medical care to the Alaska Natives through the U.S.P.H.S. the resolved portions of the resolution are presented as follows:

"RESOLVED, that U.S.P.H.S. establish an adequate definition of medical indigency in terms of annual or semi-annual income that can be applied by contract physicians, be it further

"RESOLVED, that the U.S.P.H.S. circulate such definitions to contract care physicians and that, after a reasonable period following the implementation of this plan the U.S.P.H.S. proceed to restrict their care to the needy rather than to all Alaska Natives.

RESOLUTION 11-69 and 23-69 regarding site of the 1970 and 1971 A.S.M.A. Annual meeting:

1970 meeting location will be Kenai-Soldotna.

1971 meeting location will be Juneau.

RESOLUTION 12-69 regarding physician fee is printed as adopted:

WHEREAS, the use of the 1964 California Relative Value Schedule has created confusion and dissension between third parties and Alaska Physicians,

WHEREAS, the cost of living in Alaska varies widely from one area of the State to another,

WHEREAS, third parties use the RVS as a lever for setting fees within the state, and

WHEREAS, the usual, customary and reasonable method is presently accepted in principle by most third parties, therefore be it

RESOLVED that the Alaska State Medical

Association hereby withdraws official recognition of the RVS and be it further

RESOLVED that the Alaska State Medical Association emphatically sanction determination of medical fees on a usual, customary and reasonable basis as defined by the House of Delegates of the American Medical Association during its Clinical Convention December 1968. (See attached.)

RESOLUTION 14-69 regarding cigarette smoking was passed as follows:

WHEREAS, the Federal Trade Commission has proposed rules which would require the warning labels of cigarette packages to indicate the risk of death as well as the hazard to health in smoking cigarettes, be it

RESOLVED that the ASMA commend the Federal Trade Commission for this proposal and urge the adoption of the requirement.

RESOLUTION 15-69 Comprehensive Health Planning by Federal agencies. At present a number of the federal agencies are excluded from the Comprehensive Health Planning Law of 1965, P.L. 89-749, i.e., O.E.O., U.S.P.H.S., Regional Medical Programs, etc. Resolution 15-69 requests that Congress and the federal agencies concerned take steps to insure that comprehensive health planning is done at all government levels.

RESOLUTION 16-69 requests that the A.M.A. take steps to establish A.M.A. membership as a requirement for membership in all speciality societies.

RESOLUTIONS 18-69 and 19-69 extends the Medical Association's appreciation to guest speakers and exhibitors for their participation in the convention.

RESOLUTION 20-69 calls on members to encourage and support groups attempting to form an Alaska Chapter of the National Council on Crime and Delinquency.

RESOLUTION 21-69 requests that through the A.M.A. and our Congressional Representatives, the excessive regulation of the pharmaceutical industry be stopped.

Books Received List — To be reviewed as time and space dictate.

Diagnosis and Management of Pain Syndromes, by Bernard E. Finneson, M.D., W.B. Saunders Company, Philadelphia, 1969, 328 pp. illus.

Handbook of Pediatric Medical Emergencies: Fourth Edition, by Charles Varga, M.D. and Contributors, C.V. Mosby Company, St. Louis, 1968, 662 pp. illus., \$19.75.

Introduction to Medical Science, by Clara Young and James D. Barger, M.D., C.V. Mosby Company, St. Louis, 1969, 116 pp. \$7.95.

Medical Interviewing, by Robert E. Froelich, M.D. and F. Marian Bishop, C.V. Mosby Company, St. Louis, 1969, 116 pp. \$4.75.

On Death and Dying, by Elisabeth Kubler-Ross, M.D., The Macmillan Company, London, 1969, 247 pp. \$6.95.

Physical Diagnosis: Third Edition, by John A. Prior, M.D. and Jack S. Silberstein, M.D., The C.V. Mosby Company, St. Louis, 1969, 413 pp. illus. \$10.50.

Review of Gross Anatomy, Second Edition, by Ben Pansky, M.D. and Earl L. House, The Macmillan Company, London, 1969, 464 pp. illus.

The Emergence of Modern Nursing, Second Edition, by Vern L. Bollough and Bonnie Bollough, The Macmillan Company, London, 1969, 261 pp. illus. \$6.95.

ABORTION—REPEAL OF ALASKA LAW?

The Alaska State Medical Association resolved at the annual meeting at Fairbanks on June 5, 1969, that:

“Alaska law be changed to declare that the artificial interruption of pregnancy by a licensed physician is a part of the practice of medicine and is not subject to criminal law.”

Alaska law (A.S. 11.15.060) allows abortion only to save the life of a mother.

Notice that the Association's resolution, which was adopted by a 4:1 majority, says nothing about hospitals, consultants, or specific indications for abortion such as health of the mother, expected congenital defects, incest, or rape. These are integral parts of recent abortion laws in other states (Colorado, California, North Carolina, Maryland, New Mexico). Our proposal makes abortion a matter between a woman and her physician. Others may be involved in the decision as these two desire. It is not abortion on demand but abortion as a mode of treatment if the physician feels it is the best solution to the woman's problem after careful assessment of the woman's true feelings about her condition and its ramifications.

There is considerable sentiment among laymen and legislators in favor of our suggestion. It will be offered as a substitute for Representative Sackett's House Bill 312, “An act relating to therapeutic abortions”, which is pending in the State Legislature. H.B. 312 is similar to Colorado's law.

Our position on the question of abortion is based upon these concepts:

1. A woman has a right to decide whether or not to continue pregnancy.
2. A moral decision about abortion is fundamentally hers; society has little right to impose its morality upon a woman.
3. Five to ten thousand women die annually in the United States because of criminal abortion, — a frightful loss of young women. Death from abortion in the hands of physicians will still occur, but it should be no more than 1:10,000, about the same mortality as in tonsillectomy.
4. Unwanted pregnancies produce unwanted children, who all too commonly are unloved, neglected, battered, or abandoned. Divorce, for example, is far

higher in women seeking abortion than in others.

5. Desperate women use desperate physical or chemical means to try to abort themselves. When they fail, deformed infants are often produced. Their care adds a burden to families and the community.
6. “Modern” laws such as those in Colorado, California, etc., while allowing more legal abortions than heretofore, do not solve the larger problem of criminal abortion since specific medical or narrow social indications are demanded and since there is often delay, extra expense, and loss of confidentiality.
7. Valid medical indications for abortion are few. Heart or renal disease rarely requires abortion. Congenital defects cannot yet actually be foretold. Many psychiatrists maintain that there are almost no valid psychiatric reasons for abortion. Pregnant women, for example, rarely commit suicide. Yet in California 86% of the indications for abortion under the new law are psychiatric. This suggests considerable psychiatric casuistry or games-playing.
8. A physician's responsibility, however, goes beyond narrow definitions of “medical”. In the matter of unwanted pregnancy he should be free to consider the entire social situation just as he does in considering a back injury or coronary thrombosis in relationship to job, family, and other implications. He should be allowed, for example, as in England now, to consider the impact of additional children upon children already in the family.
9. The present “system of criminal or foreign abortion penalizes the poor. It is a sad fact that women with money get abortions, while others, often far less able, for instance, to rear another child are forced to do so. Abortion by physicians should be available, if appropriate, to rich and poor alike, including women on public welfare.

In May, 1969, a questionnaire about abortion was sent to approximately 300 private and governmental physicians in Alaska. One hundred

five replied (but did not always answer every question):

- 95% considered abortion justified at times
- 93% favored a change in Alaska's law
- 76% favored abortion only in hospitals
- 54% recommended abortion only for health of mother, expected congenital defects, incest, and rape
- 49% wanted removal of all legal restriction to abortion, 55% of these would permit abortion of out-of-state women
- 26% indicated that they would perform abortion merely for the convenience of the woman if there were no law against abortion
- 11% felt that the legal question should be decided by the vote of women alone.

Physicians managing pregnancy in their practices were more conservative in their approach to a change in the law than other physicians. The questionnaire also solicited comments about abortion. Some of the comments from around the state are given on the next pages.

The Alaska State Medical Association has taken a more radical position on the issue than the majority of respondents to the questionnaire. Many of the latter are not, of course, members of the Alaska State Medical Association, and many did not have the opportunity to participate in the debate at Fairbanks on the resolution, which was adopted by a wide majority.

In summary, the Alaska State Medical Association feels that little good accrues to a woman or to the community to force her to carry an unwanted pregnancy to term. The Association will proceed now with the help of legislators and others to attempt to remove all legal restrictions to abortion by physician in Alaska.

By Rodman Wilson, M.D.
Chairman, Legislative Committee
Alaska State Medical Association

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3. Thurstone, P.B., Therapeutic abortion: The experience of, San Mateo County General Hospital and the State of California. *J.A.M.A.*, 209, 229, 1969.
4. British Policy on Therapeutic Abortion. Report of the

Royal Medico — Psychological Association, June, 1966. *J.A.M.A.*, 199, 167, 1967.

SHOULD ALL LEGAL RESTRICTION TO ABORTION BY PHYSICIANS BE REMOVED?

YES

The most straightforward and honest solution to a difficult problem would be allow abortions freely on the patient's request provided it was prior to the age of viability of the fetus which should be taken to mean the age at which the fetus is capable of movement and/or cognitive behavior. I really feel that this would solve a myriad of problems, among which not the least are the reduction of criminal abortions to zero, the correction of a problem that results from babies being born into homes unwanted and to women who could care less.

The only question for the M.D. is whether the woman can safely have an abortion considering her general health. Criminal abortions are done at the wish of the pregnant woman alone, therefore, make the same criteria apply and most abortions will be done under safer conditions than the criminal ones are done. Cost will probably be little different whether done in a hospital or other medical facility or by the criminal abortionist.

Legalize it for qualified and licensed physicians; let hospital staffs regulate their own hospitals as they see fit.

The only way to stop criminal abortion is to make abortions legal that would otherwise be criminal. This would mean that society believed that a pregnant woman had the right to decide the outcome of her pregnancy, and to legalize abortion at a woman's request, the only requirement being that her decision not be capricious, mischievous, or impulsive.

I feel that most of the demand for abortion would come from married women with large families and in many cases the addition of an extra child is a real burden. I am in favor of a liberal abortion law.

Abortions are damned dangerous after 8 to 10 weeks of pregnancy. Abortion is purely an individual decision between patient and physician.

I think the matter can safely be left up to the family physician.

Legalize it.

Make it a part of the practice of medicine.

Make it no longer a crime.

Work toward removal of all legal restrictions, but accept interval compromises.

I suggest that abortion be removed from the criminal code as a crime when performed by a physician either in

his office or a hospital, with informed consent of the patient, a signed and witnessed document. Abortion should continue to be defined as a crime if performed by anyone other than a physician.

I believe that decision as to have or not have children rests with parents and/or woman. If they do not wish a child, a legal safe way to accomplish this should be provided.

I would not want Alaska to become known as the "abortion mill" of the U.S., so would hope that some residency requirement be placed upon women seeking such an elective procedure. For medical reasons, I would not require residency.

Widely publicize in an attractive, clear manner the disadvantages of criminal abortion.

Although I am opposed to abortion because I consider the conceptus a human being, I do not expect everyone to believe as I do. There is a very serious problem with illegal abortion. Our present restrictive laws are ineffective. Abortion should be made a medical matter, just like appendectomy. The policing should be left to the medical profession. Legalize abortion at the request of the pregnant woman. The physician would not be obliged to perform an abortion if he did not wish to do so for any reason. There should be no residence requirement.

The abortion should be allowed in offices as well as hospitals.

One of our main activities now should be population control. The sooner we face this the better it will be. Certainly we're not helping this overpopulation threat if we stand by — no, even support — unwed mothers producing an offspring year after year. Population control in this form should have our serious attention.

There are no clear-cut studies as to what social and psychological effects could be expected from unrestricted abortion policy as it would apply to American women. Truly liberalizing the laws in Alaska with a firm residency requirement would allow for such a study and perhaps be predictive of what might be expected in the lower 48.

All legal restrictions should be removed from the abortion laws except that of the woman giving the permission and making the request who wants the abortion. It is my feeling that anything short of this, including hospital boards, prediction that the patient will be mentally ill, prediction that the child will be born defective, make the boards and physicians perpetrators of a fraud that is unnecessary in our society. Criminal abortion will only be abolished when there is an enlightened social attitude and medical practice in regard to this horrendous problem.

Make abortion a private contract between the patient and physician so there would be no need to resort to other than adequate hospital or medical office care, without prejudice, shame, or penalty.

Legalized abortion such as practiced in Japan by certified OB-GYN M.D.'s in the hospital.

An abortion is a private matter and not a public matter. Whether or not an abortion is done should rest solely on the woman, her husband if married, and her physician.

NO

To legalize a criminal act for one group in order to prevent the same act being done by others is not founded on logic.

It has been a well known fact that legal and liberalized abortions do not lower the criminal abortion rate. It would seem that better law enforcement and increased penalties would lower the criminal abortion rate.

The killing of perhaps nine normal fetuses to eliminate one deformed is not reasonable. Furthermore, abortion for possible congenital defects strikes me as the opening for a "superior" group to decide who is to live.

\$500 reward for info leading to conviction of anyone performing an abortion.

As for criminal abortions, have you ever heard of punishing people who break the law? I feel Alaska might be better off if this quaint custom were reinstated. Let us not do anything more to destroy the institution of the family and marriage.

Increased availability of, and understanding of birth control devices, particularly to women under age 21, is necessary to decrease unwanted pregnancies. If minors were permitted to seek medical advice for contraception without parental knowledge or consent, illegal abortion would greatly decrease.

There are apparently people openly doing illegal abortions here in Anchorage. I suggest more strict enforcement of the law. I do not feel that we have any right to take life unless to save the mother's life or prevent severe injury (physical) to her, or in cases of rape.

If we have any doctor in Alaska who has given sufficient evidence of doing criminal abortions, the medical licensure committee should have the powers, with due protection against suit, to warn him first, and take away his license if he persists. I don't know how to catch the non-medical man since the patient obviously will not go to court. I notice in some states that a limit is being set on the number of abortions done in a year — this is certainly not right. Abortions should only be done when there is a justification and not at the rate of 50 per 1000 live births or any set figures.

It is murder.

I feel the free and unlimited availability of abortion would cause a rise in promiscuity, along with moral decline of society. It would cause a rise in venereal disease and the very rise in abortions (even done under antiseptic conditions) couldn't help but lead to a rise in morbidity.

Better sex education in schools to hopefully prevent more illegitimate births.

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AURORA DENTATUS



R. A. Smithson, D.D.S.

ANCHORAGE

Dr. Earl Lampshire of Lincoln, Nebraska presented a lecture to members of the S.C.D.D.S. August 21 in the cafeteria of Anchorage Community Hospital. Dr. Lampshire is Past President, Association of Pedodontic Diplomates, Past President of the Academy of Dentistry for Children and lectures on Practice Management, Therapeutics as well as Pedodontics. We hope to have this dynamic clinician at a future state meeting.

PLAN TO ATTEND: University of Washington Continuing Education course "Integration of an Active Preventive Concept into the Busy Dental Practice" October 3 and 4 at Anchorage Westward Hotel — Dr. Robert F. Barkley, Clinician.

Dr. Harry Nahorney is convalescing in Portland after the removal of a meningioma. We all wish him a speedy recovery.

NEW MEN IN ANCHORAGE

Dr. Joe Harmon — Creighton University graduate, associated with Dr. Bob Smithson — 825 L Street — after a hitch in Vietnam.

Dr. Joe Caterinichio — also Creighton University — establishing at 3701 Mt. View Drive — after a hitch at Fort Dix.

Dr. Richard Day — University of Michigan — will be in general practice and orthodontics at 140 E. 5th Avenue.

Dr. Leonard F. Uknis — General Practice — 140 E. 5th Avenue.

Dr. James P. Jacobson — University of Oregon — general practice — will be with Dr. Joe Cumming — 406 G Street.

Dr. Richard E. Williams has left Seward to return to general practice in Anchorage — 1840 W. Northern Lights Blvd.

KENAI

Secretary-Treasurer Chuck Bailie is doing a great job, but needs help from members, committee chairman, etc.

Kenai fire is a real mess, but a lovely new Miss came along for John and Dorothy McCarthy — Congratulations!

FAIRBANKS

Howard Hughes is now fully retired from practice after 41 years of dentistry. He has contributed much to our profession and we hope he continues to attend conventions and other dental activities. Howard, we salute you!

All members are invited to attend the next Dental Society Executive Board meeting, to be held in conjunction with the Continuing Education, October 3-4, in Anchorage.

KETCHIKAN

Jim Van is sheep hunting now.

Aubrey Stephens is preparing to go to ADA meeting in New York.

CHILDREN'S DENTAL HEALTH WEEK

Chicago — Special materials for use during 1970 National Children's Dental Health Week are now available from the ADA, Mr. John Weir, director of the ADA Bureau of Dental Health Education, has announced. The NCDHW's 22nd anniversary observance will be held February 1 through 7.

Materials include television spot announcements, radio transcriptions, scripts for use on radio or TV, outdoor advertising posters, car cards, miniature posters and window displays. Mr. Weir urged NCDHW chairmen to "order all materials as early as possible to assure delivery in advance of the Week".

Two color TV spot announcements, both entitled "No Laughing Matter", are available. One is 60 seconds and one 20 seconds in length. Both spots are available free of charge.

Mr. Weir said that the ADA is continuing its subsidy of outdoor advertising posters, car cards, miniature posters and window displays.

Hopefully every Alaskan dentist will participate in this project this year. Get your plans and materials now, and contact Tom Redmond, State Chairman.

PYOGENIC GRANULOMA OF THE GINGIVA

By Donald G. Chiles, D.D.S.

*Oral Surgery Intern
V. A. Hospital
Houston, Texas*

REPORT OF A CASE

The pyogenic granuloma is a tumorlike growth which occurs at all ages and in both sexes.¹ Kerr, in a review of 289 cases, stated that there is a slightly greater incidence in the female.² Bhaskar states that, "the most common intraoral site is the interdental gingiva, but the lesion may occur on the lips, on the tongue, and rarely on other areas of the oral mucous membrane".

The exact etiology of the pyogenic granuloma is unknown. Streptococci, staphylococci, and other bacteria have been considered to play a part in its pathogenesis. Trauma appears to be the most important factor in initiating the response. Kerr, in the above mentioned review, came to the conclusion that this entity may be influenced by some intrinsic factor following the traumatic injury.

Clinically the lesion is bright red to purple in color, friable to firm, depending on the duration, and is usually ulcerated with a purulent exudate. The lesion may involute spontaneously to become a fibroepithelial papilloma or may persist relatively unchanged for years. Treatment consists of total excision plus removal of local irritating factors.³

Histologically the epithelium, if present, is generally atrophic but frequently has been replaced by a fibrinous exudate. In the corium are large numbers of capillaries which form strandlike structures. Among these endothelial lined spaces are heavy concentrations of lymphocytes, plasma cells, and neutrophils in a fibrous tissue stroma.^{4, 5, 6}

REPORT OF CASE

A twelve year old Eskimo girl from Barrow, Alaska, was referred to the dental service of the Public Health Service Alaska Native Medical Center in Anchorage, Alaska, with a history of periodic spontaneous bleeding from a lesion of the gingiva. The provisional diagnosis was capillary hemangioma of the gingiva. The lesion was located on the maxillary left quadrant with the grossest part between the cuspid and first

bicuspid. The size of the lesion was about 2 x 1.5 cm. and it was very puffy and inflamed. Although there had been spontaneous bleeding over the previous five weeks it was easily controlled with pressure packs. In addition to the lesion there was a marked diffuse gingivitis throughout the mouth with considerable gingival edema from the right maxillary cuspid to the left maxillary first molar. (figs. 2 & 4)

The patient had a capillary hemangioma of the left side of the face extending from above the left eye down the midline of the nose to the upper lip. There was another area extending from the left temporal region to the anterior of the left ear. (figs. 1 & 2)

Although the patient exhibited no hemiplegia or eye anomalies and related no history of epilepsy, a skull series of radiographs was taken to rule out any possibility of Sturge-Weber-Dimitri syndrome. This syndrome consists of superficial and deep seated hemangiomas, usually of the upper two-thirds or one-half of the face, associated with hemiplegia and epilepsy.⁷ Calcified vascular cerebral meningeal deposits produce a characteristic sinous radiographic picture.

Following the clinical examination and history, periapical and occlusal radiographs were taken to check for possible osseous involvement of the lesion. There was no evident bony involvement and at this time a careful debridement and curettage of the area was performed. The patient was placed on warm saline mouth rinses four times daily. After five days there was no noticeable reduction in the edema of the gingiva or size of the lesion and she was scheduled for surgery. (fig. 5)

The preoperative laboratory tests were all within normal limits except for the differential count which revealed a 48% lymphocyte count. The lesion was excised under general anesthesia and submitted for histological study. A gingivectomy was done from the right maxillary cuspid to the left first molar to establish a more physiologic contour of the gingiva. Bleeding from the area was profuse but responded well to



Fig. 1. Extent of capillary hemangioma of the face.



Fig. 2. Profile showing extent of capillary hemangioma.

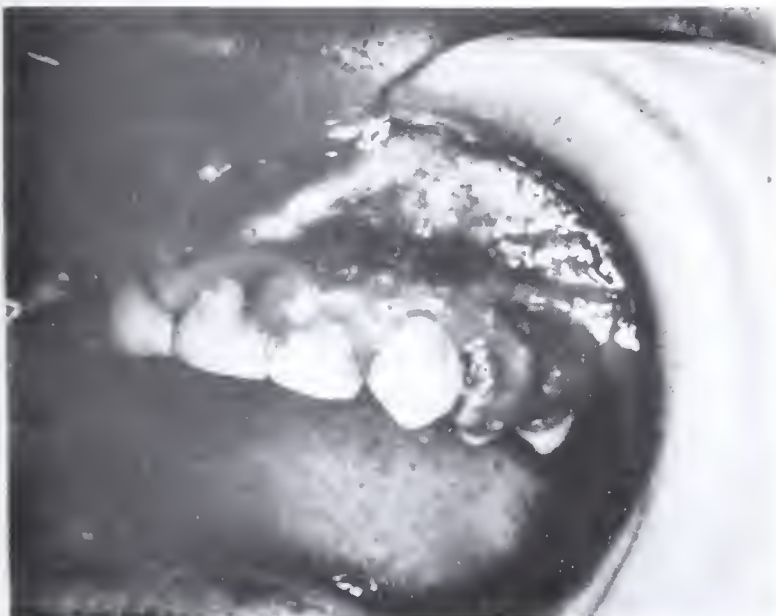


Fig. 3. Pre-op, showing lesion and edematous gingiva.



Fig. 4. Close-up view of lesion.

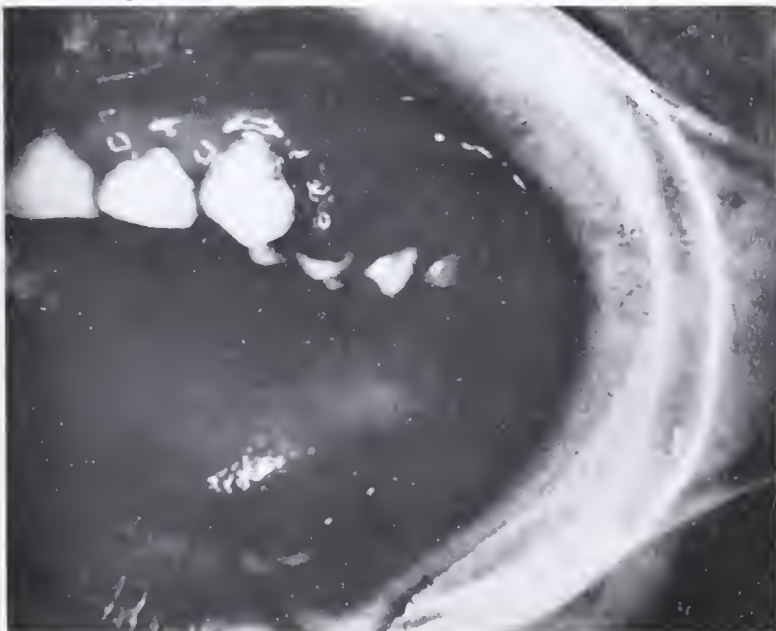


Fig. 5. Area following scaling and curettage.

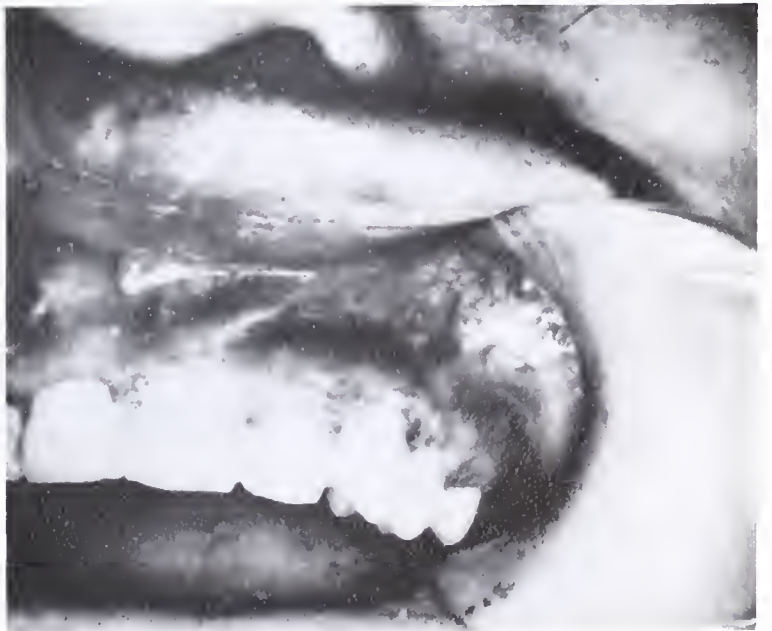


Fig. 6. One week post-op.

pressure. A strip of oxycel was placed over the wound and a periodontal dressing applied using sutures around the necks of the teeth and incorporating the suture into the dressing for better retention.

There was very little postoperative pain from the procedure. The pack was changed two days following surgery and removed completely one week later. (fig. 6) The tissues were healing well and the patient had no complaints.

The pathologist's report was returned with a diagnosis of pyogenic granuloma. The provisional diagnosis in this case was capillary hemangioma of gingiva. Bernier states in his text that the term pyogenic granuloma has been used so loosely for oral lesions that he feels capillary hemangioma - granulomatous type is more descriptive. It would appear so in this case.

This case is now one year postoperative and there is no evidence of recurrence or any further problems.⁸

An interesting sidelight to this case is noted. When the patient was first seen she was very shy and introverted. During her hospital stay she was instructed by a cosmetologist in the use of

make-up to cover the distracting hemangioma of the face. Although she did not use this knowledge during her hospital stay, she did become a little more outward and conversable. Since returning to her home village we are informed that she is using make-up to cover the lesion and is becoming quite a sociable individual.

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F. MARSHALL
1969

This picture is described on Page 116

Alaska Medicine, September 1969

DISSEMINATED INTRAVASCULAR COAGULATION IN A PATIENT WITH METASTATIC ADENOCARCINOMA OF THE RECTUM

By Glen W. Straatsma, M.D.*, Telahun Bekele, M.D.,
and Vainutis K. Vaitkevicius, M.D.

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In recent years it has been conclusively shown that certain disease entities including neoplastic diseases sometimes lead to hypercoagulability states in which platelets and plasma coagulation components are consumed in a generalized intravascular fibrin formation leaving the patient with a severe and acute deficiency state which causes extensive bleeding. (1, 2, 3, 4, 5, 6)

Also, it has been appreciated that increased fibrinolytic activity associated with different disease entities including neoplasms may lead to acute failure of hemostasis.

(7, 8, 9, 10, 11, 12, 13, 14, 15)

It is the purpose of this paper to present a patient with carcinoma of the rectum associated with acute disseminated intravascular coagulation.

In review of the literature, there have been no previous reports of rectal carcinoma primarily associated with disseminated intravascular coagulation syndrome.

A brief description of the mechanism involved is also to be presented.

CASE REPORT

A forty year old Caucasian businessman was admitted to Grace Hospital on August 1, 1966 because of back pain, hematuria and lumbar purpura.

He had been in good health up to April,

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1965, at which time he presented with diarrhea of two weeks' duration, the color of the stool becoming progressively black. A diagnosis of mucinous adenocarcinoma of the rectum was made and an abdominal perimeal resection with a permanent left colostomy was performed. The tumor was unusually pleomorphic and invaded the subserosal fat. Numerous mesenteric lymph nodes were involved by the tumor. His post-operative course was uncomplicated and he was discharged. The histology of the lesion is shown in pictures A, B and C.

For the following eight weeks, he remained asymptomatic, until four days prior to admission when he noted sudden back pain while playing golf. This was localized to the lower spine. Two days later, an ecchymotic discoloration occurred at the site of the pain. He also developed hematuria and was admitted to Grace Hospital for investigation.

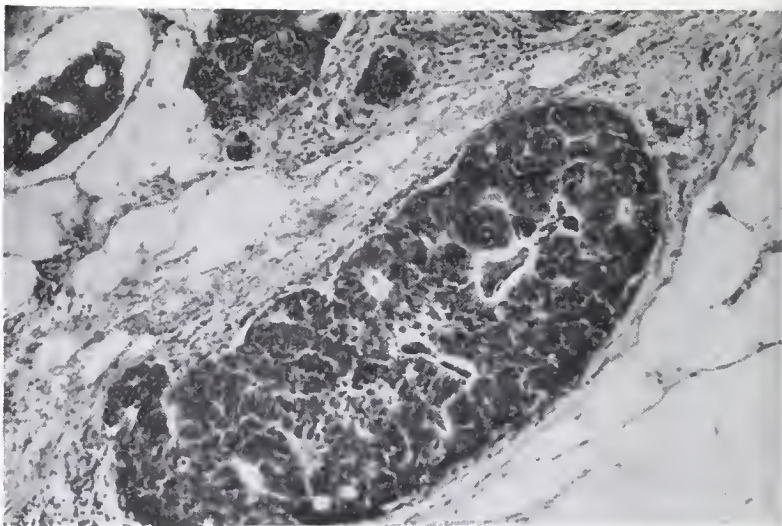
Physical examination on admission revealed a well-developed, well-nourished male with normal blood pressure findings who was alert and cooperative with complaint of back pain. The liver was found to be 6 cms. below the right sub-costal margin. The nodes over the posterior cervical triangle and the inguinal areas were grossly enlarged, and ecchymosis was limited to the lumbar region.

Laboratory findings included a hemoglobin of 11.2 gm%, a platelet count of 170,000 and a fibrinogen level of 290 mg%. The bleeding and clotting times were each nine minutes. The prothrombin activity was 63%, the alkaline phosphatase was 4.5 Bodansky units, and the glutamic oxaloacetic transaminase was 33 units. The total bilirubin was 0.4 mg. The chest x-ray and the retrograde pyelogram were both normal. After admission to the hospital, more ecchymoses appeared over the upper extremities and the

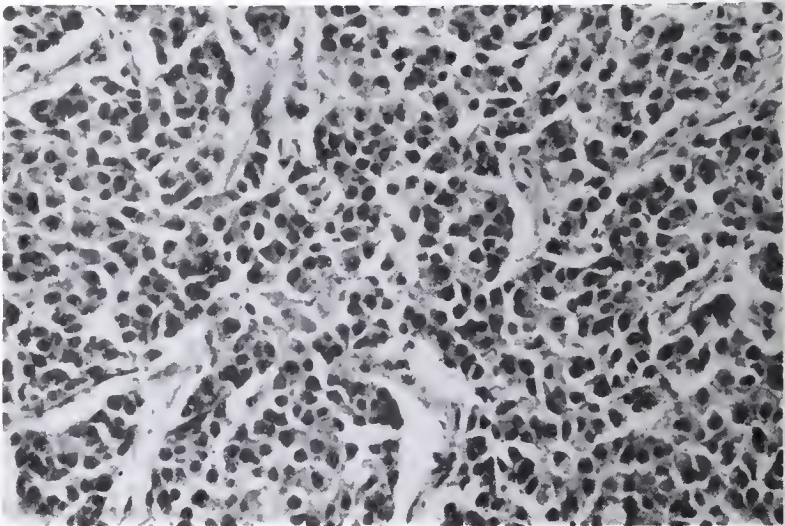
shoulders, and hematuria became more severe. Six days later patient's hemoglobin was 7.7 gms, despite repeated blood transfusions (4000 ml. of whole blood). The platelet count dropped to 38,000 and the fibrinogen to 75 mg%. The stool specimen gave a 4+ guaiac test. There was no clot lysis present after 24 hours. He was transfused with more whole blood and started on corticosteroids. Three days later, he was transferred to the Darling Memorial Center for further evaluation and treatment.

When patient came to our department, he was weak, lethargic and complained of generalized pain. The blood pressure was 120/90, pulse 84 and temperature 98°. The skin and sclerae were markedly icteric. Multiple fresh ecchymoses involved patient's back and abdominal skin. The fundi showed numerous flame shaped hemorrhages, but there was no papilledema. The lymph nodes over the left posterior cervical triangle and the supraclavicular area were grossly enlarged and tender. The lower edge of the liver was 12 cms. below the right subcostal margin and was tender and nodular. A left abdominal functioning colostomy was noted. The inguinal nodes were also enlarged and tender.

Laboratory investigation showed a hemoglobin of 6.3 gms per 100 ml., a platelet count of 40,000 and a fibrinogen level of 252 mg%. The bleeding time was 3 1/2 minutes and the prothrombin activity was 63%. Table I shows the thromboplastin generation test with antihemophilic factor (AHF) and plasmathromboplastin component (PTC) assay. Clot lysis was only moderately present after 72 hours. Factor V assay was 15.6 seconds, corrected with a control of 12.7 seconds. The glutamic oxaloacetic transaminase was 120, and the lactic dehydrogenase was 1050. The alkaline phosphatase was 24.2 Bodansky units and the acid phosphatase was 0.2 units. The serum bilirubin was 9.6, and the uric acid ranged from 9.6 to 19 mg%. The albumin and globulin were 3.4 and 3.3 gms. respectively. The BUN was 48 mg% and the serum electrolytes were within normal limits. The Ca and P were 11 and 5.5 gm. respectively. The urine was positive for bile and



A. Moderately well-differentiated tumor in subserosal lymphatics.



B. Poorly differentiated portion of the tumor invading mesenteric fat.



C. Mucin forming carcinoma in mesenteric lymph nodes.

protein and the stool specimen again showed a 4+ guaiac test. A serum protein electrophoresis was normal. A bone marrow showed sheets of mucinous cancer cells but contained adequate numbers of megakaryocytes. A liver scan showed a grossly enlarged liver. The chest x-ray revealed

TABLE I THROMBOPLASTIN GENERATION TEST WITH AHF AND PTC ASSAY			
Reagent Check	Patient	Patient AHF+ Reagent PTC	Patient PTC+ Reagent AHF
2 mins. 31 secs.	29 secs.	36.5 secs.	10.0 secs.
4 mins. 19.9 secs.	16 secs.	26.0 secs.	11.5 secs.
6 mins. 14.1 secs.	19 secs.	14.1 secs.	12.0 secs.

hilar and supra-hilar infiltration consistent with metastatic adenocarcinoma.

COURSE IN THE HOSPITAL

After transfer to the Milton A. Darling Memorial Center, the patient was transfused with four units of whole blood bringing his hemoglobin to 12.8 gms%. With the cessation of bleeding, the patient's platelet count rose to 260,000 and the fibrinogen to 280 mg%. However, the control of bleeding was not followed by clinical improvement. The patient's liver continued to enlarge rapidly and he complained of severe perihepatic pain. On the tenth day following admission, a Cournand catheter was placed in the hepatic artery via the left brachial artery. Two days later, intra-arterial chemotherapy with 5-fluoro-2-deoxyuridine was begun. The patient received 0.5 mg/kg of the drug for two days. Intra-arterial chemotherapy was stopped because of sudden hemorrhage into the upper digestive tract which could not be compensated by massive blood transfusions and was rapidly fatal. Unfortunately, complete coagulation studies could not be repeated during the terminal episode which included a time period of 5-6 hours. Only a platelet count and fibrinogen determinations were obtained shortly prior to the patient's death. They were 32,000 and 82 mg% respectively. Prior to the acute bleeding episode, the patient's blood pressure was recorded as normal. He had not been in shock at any time during the 16 days of hospitalization on our service.

Discussion

In rare instances, spontaneous hemorrhages occur in association with hypercoagulability states of the blood in which case there is extensive intravascular clotting and widespread thromboses. It is thought that cancer cells in the peripheral blood exert an effect similar to thromboplastin in precipitating intravascular coagulation.^(2, 3) Increased levels of AHF found in the serum of patients with neoplasms may play a role in initiating clot formation.⁽³⁾ During the course of extensive clotting, the platelets as well as clotting factors are consumed. This allows bleeding to take place. Continued intravascular clotting is physiologically followed by and associated with clot lysis. The otherwise stable state of plasminogen-plasmin reaction undergoes a

shift to the right and active fibrinolysis occurs. Fibrinolysin activity varies in degree in individual states of disseminated intravascular coagulation and thus variably affects the reaction fibrinogen-fibrin by digestion of fibrin to a comparably variable extent. Only where fibrinolytic activity is complete and long-lasting can a state of afibrinogenemia be achieved. Fibrinolysis activity could not be documented in the above case presentation. It is felt that such mechanism did not significantly contribute to the fibrinopenic state of our patient. Usually the contribution of such fibrinolysis to fibrinopenic state as opposed to the consumption of fibrinogen in the clotting mechanism itself makes the decision as to whether a fibrinolytic inhibitor or an anticoagulant, or both, should be used an extremely difficult one in each individual case.

The therapeutic regimen administered in our case consisted of the use of whole blood to restore coagulation factor deficiency. It is of interest to note that other than during the fatal episode of hemorrhage, at no time did the patient require therapy for shock which is usually the precipitating cause of disseminated intravascular coagulation.⁽¹³⁾ It is important to note that on the day prior to the final acute hemorrhagic episode, the patient's platelet count dropped from 260,000 to 52,000. During the fatal episode further drop of platelets to 32,000 and of fibrinogen to 82 mg% occurred and it is assumed that acute consumption of platelets associated with a state of hypercoagulability, which also depleted the patient of other coagulation factors, precipitated the acute hemorrhagic episode rapidly leading to the patient's death. This final episode was preceded by a similar, not so severe, acute crisis which occurred soon after admission to the Grace Hospital during which the consumption of platelets and fibrinogen occurred and is documented above. It is noted that evidence for a fibrinolytic component

TABLE II
COAGULATION STUDIES

	Control	Patient
Recalcification - seconds	80-120	60
Positive Thromboplastin Time - seconds	50-130	43
One-stage Prothrombin Time - seconds	13	12.4
Prothrombin - U/ml.	250-50	200
Ac-Globulin - U/ml.	10.8	22.0
Factor VIII - %	60-200	145
Fibrinogen - mg%	200-300	129
Antithrombin - %	40-60	50
Thrombin Time - seconds	11.8	40
Euglobulin Lysis Time - minutes	180	360

contributing to the hemorrhage is lacking as seen in repeated clot lysis determination, and also the normal euglobulin lysis time seen in Table II. In retrospect, proper treatment for this patient would have consisted of heparin anticoagulation.⁽¹⁶⁾ It is also noted that failure to demonstrate fibrinolysis in vitro does not rule out the existence of such phenomenon in vivo.

Summary

A case of acute bleeding syndrome was presented in association with adenocarcinoma of the rectum. Disseminated intravascular coagulation and coagulopathy was documented. Active fibrinolysis was not conclusively shown to be present. A brief description was made of the consumption coagulopathy and of the fibrinolytic syndromes. The therapy administered was briefly discussed.

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About the picture on Page 89

ARCTIC VIGIL

26 by 32 oil painting on masonite, loaned by Mr. and Mrs. Bob Ribelin

This painting depicts a polar bear or "Nanook", as the Eskimos call him, peering over a cake of pressure ice, looking for food or watching for an enemy. His chief source of food is seal and his main enemy is man, a walrus in the water is a match for the polar bear. Polar bears are tremendous swimmers and have been found eighty miles from land. In this picture it is night in the arctic and

the moonlight is casting a shadow on the bear and the ice cake. Even in moonlight the northern lights stand out with their usual blueish green rays forming a curtain or drapery behind Nanook. The coat of the bear instead of being a pure white is a tawny light golden color which contrasts with the coolness of white snow or ice, a light blue color in the arctic night. By: Fred Machetanz.

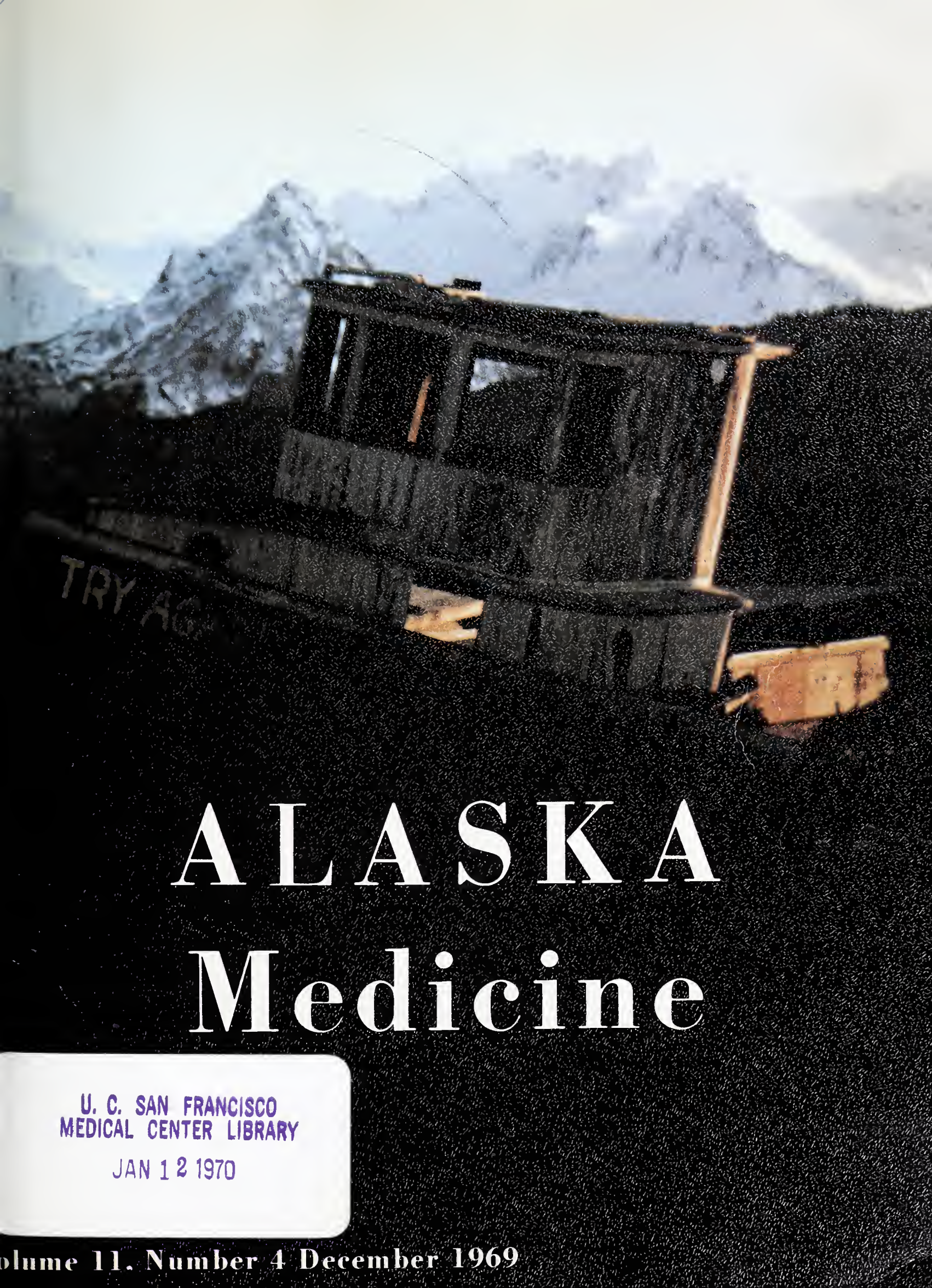
About the picture on Page 112

"CLIMAX OF THE HUNT"

32 by 52 oil painting on masonite, loaned by Dr. and Mrs. Lloyd Hines

This painting depicts a walrus hunt. The umiak of hunters has been cruising thro the fog laden waters among the ice floes in search of walrus. They have finally come on a group which have been sleeping or resting on this section of ice. They have moved in on them carefully and with their light parkee coverings to disguise or hide themselves. Finally they have come in range and are now shooting at the walrus hoping to have them die on the ice. Those which are in the

water the hunters try to retrieve by harpooning them. One member of the hunting crew is getting ready to throw in the water an inflated seal poke or float which will be attached to the thong of the harpoon, thus letting the hunters find the killed walrus. The painting has been done with a green feeling to depict the feeling of the scene in a fog covered sea. By: Fred Machetanz.



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LETTERS TO THE EDITOR

Dear Sir,

The resolution adopted by the Medical Association, reported in "Abortion — Repeal of Alaska Law" in your September issue is based on a misunderstanding of our present law in Alaska.

There is no law in Alaska which prohibits "the artificial interruption of pregnancy" by a licensed physician or anyone else. So far as I am aware, Alaska is the only state in the nation which has no statute governing early abortion.

We do have a homicide statute, A.S. 11.15.060, defining the killing of an unborn "child" as manslaughter, but that is quite a different thing. By both legal and medical definition, a foetus is not a "child" until it is viable — until there is a heartbeat — until life can be "felt". This is usually in the fourth or fifth month of pregnancy. Until that time, we are not dealing with an "unborn child", and no crime is possible. This is not just theory — the courts of the State have so held on at least two occasions. There is, therefore, no law whatever to forbid the elimination of a foetus during the first three months of pregnancy.

The historical background of this rather unusual situation is interesting. In the 1880's, Congress adopted many sections of the Oregon Criminal Code as a code for the Territory of Alaska. Oregon then had two sections relative to abortion, one making it a misdemeanor to bring about the elimination of a foetus, and the other identical with our present A.S. 11.15.060 covering the death of an "unborn child". For some reason, either deliberate or unintentional, only the felony manslaughter section was brought to Alaska, Alaska has never had a statute covering abortion during the first three months of pregnancy.

Since 1958, there have been several attempts to plug this gap with legislation. The late Dr. Bill Whitehead offered several bills, and John Sackett now has a bill

pending in the House. Frankly, there does not seem to be a great deal of concern in the legislature as to whether any legislation is adopted. Apparently, most legislators are willing to see the situation remain as it is, within the control of the individual practitioner and the Medical Association.

Very truly yours,

Wendell P. Kay
Alaska State House of Representatives

COMMENT ON REPRESENTATIVE KAY'S LETTER

Representative Kay has clarified the origin of AS 11.15.060, but another section, AS 08.64.380(3A), allows revocation of a medical license for "procuring or aiding or abetting in procuring a criminal abortion." Mr. Kay would argue, I suppose, that a physician would have nothing to fear so long as the conceptus was not a "child". But the door would always be open for a disgruntled aborted woman to claim that she really had felt quickening. Who could gainsay her?

Doctors are uncomfortable with the archaic definition which says that one becomes a child only when he starts kicking his mother or having an audible heartbeat. Biologically, of course, the fetus or child is alive from the time of conception, and, indeed, the ovum and sperm are alive before that. So, when does life begin? When does the child begin?

The best way to resolve the confusion is to repeal both sections of the law.

Rodman Wilson, M.D.
Chairman, Legislative Committee



drawing by Marge Dittrich

ON ABORTION, A DISSENT

By J. Paul Dittrich, M.D.

The September, 1969 issue of *Alaska Medicine* printed an article supporting a bill before the Alaska legislature regarding liberalization of abortion laws in Alaska. The resolution in question suggests that "Alaska law be changed to declare that the artificial interruption of pregnancy by a licensed physician is a part of the practice of medicine and is not subject to criminal law."

The article states that this resolution was approved by a 4 to 1 majority of the Alaska Medical Association and gives reasons why such a law should be passed. The Association apparently felt, legally and medically, that abortion should be condoned, leaving the choice of fetal life or death solely with the Mother and Physician.

I feel this is wrong. I admit that I do not deal with obstetrical cases. I have never had a pregnant unwed teenager in my office seeking a solution to her problem. I have never dealt with a woman with ten children insisting that she cannot possibly afford the new baby, or a woman with rubella in the first trimester of pregnancy or one with severe heart or kidney disease who becomes pregnant. These are very real and tragic problems, certainly not rare, and not to be taken lightly. Seeking an answer to these problems is a proper and integral part of the practice of medicine. It is the proposed solution to these problems, however, that I feel is wrong. It is not wrong because one religion or another says it is wrong. It is not wrong merely because it may be dangerous to the mother or because it promotes promiscuity, or because it is a money making procedure for the doctor, or any of these reasons. It is wrong because it is an intrinsically immoral act in direct violation of natural law.

NATURAL LAW

What is natural law? Simply defined, natural law is a rule of conduct or use of a person or object in fulfilling and befitting the nature of that person or object. All objects, animate and inanimate, are bound by the natural law, or law of nature, to act in fulfilling their nature except one — Man. Because of his rational nature and free will, man can choose to act either in accordance with or in opposition to his nature. In this sense, an action may be one of two kinds, natural or unnatural. For

example, it is part of man's nature that he can walk, and walking is thus a natural act. It is not part of man's nature that he fly by flapping his hands, and any attempt to do so is an unnatural act. Now, if any individual limits his aeronautical aspirations to jumping off a two foot platform onto a soft mattress and flapping his hands while falling, this is certainly an unnatural act, but because no real harm is done by it to himself or others it is not an immoral act. If, however, he jumps from a ten story building onto a busy street below, killing himself as well as several pedestrians, his action is not only unnatural but also becomes immoral. Keeping these few simple illustrations in mind, I think it can be shown that artificial interruption of pregnancy is not only an unnatural act but an immoral one as well.

The following arguments were advanced in defense of abortion:

- (1) "A woman has a right to decide whether or not to continue pregnancy."

Using this same reasoning, would not a person also have the right to continue or discontinue his own life? If a pregnant woman holds power of life or death over the fetus — an individual human being — should she not also have the same power over her own life? It should then be permissible and "a part of the practice of medicine and not subject to criminal law" to allow a physician to skillfully and scientifically kill that individual if they both agree it is the best solution to a particular problem. If we give the mother and physician the right to decide if the fetus lives or dies, what happens when the mother, by reason of mental illness, age, personality disturbances, cultural and ethnic differences, etc. is incapable of making such a decision? Is it then left solely to the doctor? Must he then obtain consultation? Who would in the first place, decide that the mother is incapable of making the decision for herself? Perhaps we might set up review boards to make the decision. Perhaps then because the doctor is a busy man, he could be omitted and each case of pregnancy would be reviewed by the board who would then notify the doctor of its decision. Perhaps we might eventually reach the summit of simplified decision making by using a computer to decide. The tragedy is that it matters not so much who actually makes the decision, as that we have

the audacity to assume that anyone has the right to make it at all.

(2) "A moral decision about abortion is fundamentally hers; society has little right to impose its morality upon a woman."

A moral decision about abortion is not fundamentally the mother's. Society has not only the right but the duty to impose its morality in protecting the life of the unborn child. A mother has no more right to arrange the killing of her child before he is born than after he is born, and a physician is bound by the same code of morality.

(3) "Five to ten thousand women die annually in the United States because of criminal abortion, a frightful loss of young women. Deaths from abortion in the hands of physicians will still occur, but it should be no more than one in ten thousand, about the same mortality as in tonsillectomy."

I agree with this reason. Criminal abortion is criminal. However, what makes it criminal? Is it because it is done by an unskilled charlatan in a clumsy and unsterile manner with all the usual tragic results of uterine perforation, sepsis and hemorrhage? If, under these circumstances a "perfect" result should occur, the pregnancy is terminated and the mother develops no complications, does this act suddenly become noncriminal? I think not. I also think the act suddenly does not become "noncriminal" if done by a trained M.D. under sterile hospital conditions and with good results. If, under sterile conditions and performed by a licensed physician, perforation or infection should occur, does this make a "noncriminal" or therapeutic abortion suddenly become a criminal one? It is not the presence or absence of postoperative complications that make abortion criminal or noncriminal. It is the act of abortion itself that is criminal.

The statement is often made that the embryo or early fetus is not actually a human individual, merely a potential one. It is argued that the particularly human qualities or nature of humanness — call it a soul, or a rationality, or a mind, or factor X if you wish — are not added to the fetus until a later stage of development. Some say this occurs at eight weeks and some say twenty weeks and some even later. There is no way of proving or disproving this theory. It would seem logical, however, to assume that this "Factor X" is added to the fetus at the moment of conception, since all other structures that will eventually be present in the adult are present, in a primordial state, from the moment of conception, and growth is simply a matter of differentiation and increase in size of

these various organs. No new physical parts are added. Why should we then assume, that at some indefinite period later in development, some mysterious force or event adds "Factor X" to the fetus? Even assuming, however, that this occurs, it does not change the moral issue involved. A potential human being has just as much right to grow and develop and be protected from harm as an "actual" one.

How different is our reaction in other circumstances involving life. We don't demand proof of the high quality of the life we save in other situations. The drunk in the gutter whom we pass by without a second glance suddenly calls forth our greatest medical efforts if he is brought to the hospital with a cardiac arrest. Suddenly this worthless dreg of humanity becomes very precious to us, and our human nature demands that we do our utmost to preserve that life, even though success would mean nothing more than returning this man to his seemingly miserable worthless existence. A disaster, such as a mine cave-in, an airplane lost in the wilderness, or a ship sinking at sea, all call forth our supreme efforts at rescue as long as there is the slightest hope that life may be present. We don't demand absolute proof of survival before instituting rescue efforts; we expend monumental efforts on the faintest possibility that we may save someone. Why then should our response be diametrically opposite with abortions, when we are willing to destroy a fetus on the faint possibility or even hope that life does not exist in the uterus. This is the crucial point of the argument. The pro-abortionist must, in order to justify his action, deny the existence of life or humanness in the embryo. If he were even to admit the possibility of life beginning immediately after conception, the idea of abortion becomes completely repugnant and morally untenable. It is therefore crucial to his argument to deny humanness in the embryo. Deny it he can. Prove it he cannot. Not on a scientific, philosophical, sociological, ethical, or theological basis can he disprove the possibility of the presence of life in the embryo. Until he can irrefutably do this, he is morally not allowed to interfere with the growth and development of that embryo. A hunter, seeing an indistinct object at dusk moving in the brush, is morally prohibited from firing at that object on the mere hunch or suspicion that it is not another hunter. He must be able to absolutely prove that his target is not human before killing it. Similarly we do not stop our resuscitation efforts on a cardiac arrest victim as long as there is any faint hope that we may revive him. We require certain

proof that no life or hope of life exists. So it must be with the abortionist. Until he can irrefutably prove nonhumanity in the embryo, he must not destroy it.

We seem to be able to assign varying degrees of humanness or importance of life to various people, depending on their degree of proximity to ourselves. For example, upon reading of the crash of a large airplane, we immediately search the list of victims to see if any were known to us. If not, we go on to the sports page without much more thought being given to the disaster. But let that list contain the name of a friend or relative and immediately our sorrow is apparent. Why should this be? The elements of life or humanness are identical in each instance. We cannot morally or logically say that the lives of the victims unknown to us are of no consequence and have no intrinsic value simply because we did not know them or they were remote to us. By the same token, an embryo is remote to us. Most nonmedical people have no concept of what an embryo is like. Even in the medical community, specimens of very early embryos are rare and the ones that are available are described at great length in medical journals. The presence of an early embryo is usually quite subtle — its existence can only be suspected by secondary signs and sophisticated laboratory tests. What then could be more remote? Thus, because of its remoteness, its well-being evokes little emotional response in us. It is relegated to the same level of humanity as the unknown victims of the plane crash. But this does not allow us to say that it is of no consequence or has no intrinsic value or right to life. Assigning this lower level of humanity to intrauterine life does seem to make abortion more palatable to its proponents. It is, however, a false appetizer because just as the plane crash victims are intrinsically not less human or valuable simply because they were unknown to us, neither is the embryo intrinsically less human or valuable simply because of its remoteness.

I would think in answer to argument number three (3) above, that a more realistic approach to criminal abortion would be to strengthen our laws against it and stiffen the penalties to such a degree that it becomes a dying art.

(4) "Unwanted pregnancies produce unwanted children, who all too commonly are unloved, neglected, battered, or abandoned. Divorce, for example, is far commoner among women seeking abortion than others."

Would not a better solution to this problem be to improve our social services, to provide a place for unwed mothers to have their babies and

increase the number and efficiency of adoption agencies. I would hazard a guess that the list of couples waiting to adopt a baby is considerably longer than the list of those desiring abortions.

(5) "Desperate women use desperate physical or chemical means to try to abort themselves. When they fail, deformed infants are often produced. Their care adds a burden to families in the community."

If an acceptable alternative were provided, this would lessen. A woman in this situation becomes desperate because she has no alternative. Again, an improved system of social services with an acceptable alternative would eliminate some of the feeling of panic and need for desperate measures. The fact that some of these women take desperate measures and injure themselves and their unborn children increases the tragedy of the situation but does not affect its morality or legality.

(6) "Modern laws such as those in Colorado, California, etc., while allowing more legal abortions than heretofore, do not solve the larger problem of criminal abortion, since specific medical or narrow social indications are demanded and since there is often delay, extra expense, and loss of confidentiality."

This merely points out that abortion laws in some states have failed and has no bearing on the morality of the issue.

(7) "Valid medical indications for abortion are few. Heart or renal disease rarely requires abortion, congenital defects cannot yet actually be foretold. Many psychiatrists maintain that there are almost no valid psychiatric reasons for abortion. Pregnant women, for example, rarely commit suicide. Yet in California eighty six (86) per cent of the indications for abortion under the new law are psychiatric. This suggests considerable psychiatric casuistry or games playing."

I agree with this statement. All too often the necessity for performing and legalizing so-called "therapeutic abortion" is said to be present on medical or psychiatric grounds, when in reality this indication is rarely if ever present. Any number of specious grounds for abortion on a medical or psychiatric basis could be readily conjured up by any patient or physician with a little imagination.

(8) "A physician's responsibility, however, goes beyond narrow definitions of 'medical'. In the matter of unwanted pregnancy he should be free to consider the entire social situation just as he does in considering a back injury or coronary thrombosis in relationship to job, family, and other implications. He should be

allowed, for example, as in England now, to consider the impact of additional children upon children already in the family."

Indeed, the physician's responsibility goes beyond narrow definition of "medical". It extends into the moral, legal, and philosophical aspects of life and society. It does encompass the "entire social situation" of the family and society in an objective, critical, and moral manner. It should not allow the exigencies of the present situation to tunnel his vision and eliminate the guiding principles of morality and natural law. The physician should be an instructor and builder of society, not merely an eraser of its mistakes. In caring for a coronary occlusion or back injury, the physician is striving to preserve life and function, not to destroy it. Referring back to the discussion of natural and unnatural acts, it is the function or nature of the spine to support the body tissues — the spine's function or nature is not to rupture a disc. To the contrary, a ruptured disc destroys the nature or function of the spine, and when the surgeon removes the ruptured disc he is restoring the nature or function of the spine. Likewise it is the nature or function of the heart to pump blood and a myocardial infarction interferes with this function. Treatment of this damaged muscle restores the nature or function of this vital organ. In the same vein, it is the nature or function of the uterus to carry and nourish the fetus in its early development. A pregnant uterus is not a pathological or unnatural uterus. To the contrary, it is doing exactly what it was designed to do. It is fulfilling its nature. Forcing that uterus, however, to give up its natural function of pregnancy is an unnatural act. In addition, because a grave evil is done — the intentional causing of death to an innocent human being — the action is also immoral.

In making his decision regarding abortion, as with all scientific and moral decisions, the physician and moralist must not allow his emotions to cloud the issues at hand. Unfortunately, a great deal of emotion is evoked in any discussion regarding abortion — sympathy for the unwed mother, anger at the physical carnage wreaked by the unskilled criminal abortionist, and compassion for the unwanted child. These are all proper and human responses to tragic situations. They are not, however, the proper basis for determining the rightness or wrongness of abortion. They must not be allowed to destroy our concepts of morality and of the intrinsic value of human life. Any decision regarding abortion must be made objectively,

critically, and philosophically in proper perspective to moral concepts and principles.

(9) "The present 'system of criminal or foreign abortion' penalizes the poor. It is a sad fact that women with money get abortions, while others, often far less able, for instance, to rear another child, are forced to do so. Abortion by physicians should be available, if appropriate, to rich and poor alike, including women on Public Welfare."

This has no bearing on the morality of the question at hand.

As stated in number seven (7) above, "valid medical indications for abortion are few." On what basis then, are we asked to approve abortion as the only solution to this problem? The answer is convenience. It is, on the surface, a simple solution to a complex problem. It makes it easy for the patient. It simplifies the physician's problem, and at the same time protects him legally. Convenience and simplicity, however, are never the criteria for a moral judgement and rarely the attributes of good medicine. Why must we resort to an unnatural and immoral act to solve a problem which, however, tragic, is more social and moral than medical.

This is no way intended to imply that all physicians supporting the legalizing of "therapeutic abortion" are beady-eyed, immoral charlatans. On the contrary, the vast majority of these physicians are sincerely interested in helping their patients, just as they would be if the patient had appendicitis or a broken leg. I think, however, that these physicians have allowed their emotions to overrule their rationality and moral principles in deciding that abortion is the proper solution the problem.

If abortion is not immoral, as suggested by its supporters, why is there so much insistence on its strict regulation by means of review boards, consultations, residency requirements, etc.? Why is there fear expressed by those individuals in favor of liberal and slack abortion laws that the ease of obtaining abortions will turn their area and hospital into an "abortion mill"? Why is this to be feared? If easy abortions are a good and moral solution to a pressing problem, why not start doing them en masse and start solving the problem?

Perhaps it is because we realize that this is the beginning of a disregard for human life. If we can morally justify abortion, simply because it is a ready solution to a complex problem of the unwed mother, why cannot we also apply the same principle, as a simple solution, to the complex problems of the aged, the infirm, the incurably

mentally and physically ill? If as the proabortionist argues, we are only destroying "potential life", it is a simple extension of his arguments to justify such destruction of "actual life."

Perhaps this is what we fear, because, while we seek a quick and simple solution to the immediate problem, we recognize the immorality of the solution, and attempt to salve our conscience by limiting the amount of immorality we will accept. This is nonsense! It's either right or it's wrong. If it's right, let's go all out for it. If it's wrong, let's throw it out. I hope, for the good of our profession and our state, that we throw it out.

COMMENTS ON DR. DITTRICH'S ARTICLE

Dr. Dittrich's arguments are good ones. By and large, however, society does not regard an unborn child as fully human. It is not given a name; its life is not counted from the time of conception but from the day of birth; it is not counted in censuses; it is not given rights of inheritance or other legal rights; if it dies before birth or even at birth, it is not ordinarily given a funeral. It has life, yes, but this is about all it shares with humans. It has humanness but not humanity; this it acquires from birth and develops increasingly.

Nor has the abortionist commonly been treated as a murderer by society. Why not? Because he does not kill a human being, just something which could become human. The blueprints, as Margaret Mead says, are not the building.

But these are philosophical and moral distinctions about which we will never all agree. Therefore, the attitudes of the individuals involved — the woman and the physician usually — should prevail.

Rodman Wilson, M.D.
Chairman, Legislative Committee

ALASKAN RURAL HEALTH SERVICE PROPOSED

Rodman Wilson, M.D., Chairman of A.S.M.A.'s Legislative Committee, presented on September 12, 1969 the following statement to the Indian Health Committee of the Association of State and Territorial Health Officers.

The chief concerns of the Alaska State Medical Association for the future of medicine in Alaska are first that all Alaskans receive good medical care and second that medical resources be used efficiently.

Our oil riches will afford education and jobs to Alaskans as never before. A land claims settlement will further enhance the economic position of Indians and Eskimos. Natives will demand more medical services and many will seek private medical and dental care. Plans for tribal health insurance programs are already afoot.

But because medical manpower is scarce and medical facilities are expensive, we must not allow double systems to develop in cities for special groups of people such as natives, veterans, and seamen.

Private medicine recognizes that it cannot encompass the medical needs of rural Alaska, although a few physicians and dentists would settle in small towns if they could have privileges in nearby hospitals. S.B. 2241 and H.B. 12709 will make this possible for physicians and should be amended to include dentists.

It is suggested, therefore, that the Alaska Native Health Service become the Alaska Rural Health Service, with the mission of providing medical and dental care to all residents, regardless

of race, in bush areas where private facilities are inadequate. In semi-rural areas (Kenai Peninsula, Kodiak, Glennallen, and parts of Southeast Alaska) where private medical care is available, contract care should be expanded. In Northwest Alaska certain hospitals should be rebuilt or expanded. Specialist coverage should be increased so that expensive transportation of individuals to Anchorage or Fairbanks for routine medical or surgical problems is avoided. Governing boards, or at least advisory boards, of local citizens should be named for each rural hospital, so that each could become in fact a community hospital for the use of all individuals, physicians, and dentists in the area.

The Alaska State Medical Association also favors expansion of community health centers and health stations.

We see little need for the United States Public Health Service to expand facilities in large cities in Alaska. An alcoholism center sponsored by the State of Alaska would, for example, release many beds currently occupied by alcoholic natives. Obstetrical services in private hospitals could easily accommodate the one or two Alaska Native Service deliveries a day in Anchorage. But if the United States Public Health Service feels that it must persist in cities, hospitals and clinics should be constructed in conjunction with existing community hospitals, as has been done in Ketchikan and Juneau and as planned in Fairbanks, so that costly supporting facilities and scarce specialists can be shared.

THE VILLAGE MEDICAL AIDES— ALASKA'S UNSUNG, UNLICENSED AND UNPROTECTED PHYSICIANS

By Paul Eneboe, M.D.

Disconcerting as it may be to us of the medical profession, we have a large number of non-MD colleagues (occasionally a nice word for the competition) practising medicine in Alaska and providing a very important segment of the health care for the people in the state. I refer, not to the quacks and chiropractors, but to a legitimate source of medical practice, the village medical aide, or as the powers of PHS officialdom would have them called "Comprehensive Community Health Aides" or, better yet, the brain child of one brilliant young bureaucrat, "Villigaides". For the purpose of this article I will call them Medical Aides or Medical Assistants simply to emphasize the fact that they do practice medicine.

In many of the scattered and isolated villages of Alaska, particularly in the Bristol Bay, Yukon-Kuskokwim Delta and Bering Sea-Arctic Sea coastal areas, the village Medical Aide is the bulwark of health care. Not infrequently such communities can go months and rarely even years without seeing a nurse or physician. Even in more fortunate villages where the Public Health nurse makes her quarterly visits and the USPHS physician makes his yearly field trip, 90 per cent of the daily medical problems fall upon the shoulders of the Medical Aide.

Who is this Medical Aide? What special qualifications, training or skills does the Medical Aide have?

Initially, way back in Territorial days, the intrepid Public Health Nurse would select some capable person from the village and leave him or her with a few medicines and some standard instructions, relying upon them to do the best they could with the meager knowledge she was able to impart.

Later BIA and now PHS physicians practicing in the bush have continued to use the Medical Aide system with some increased refinements and responsibilities. The person selected as Medical Aide is generally someone from the village willing to assume the duties and responsibilities. Usually they have a fair command of English but few

other qualifications. The Medical Aide is frequently a young woman or high school student, or occasionally a man who, in addition to his Medical Aide responsibilities, must provide for his family. Medical Aide duties may take only a few hours a day, or, in the larger villages, may be so extensive as to take the entire day. Until last year some villages paid their Aides ten, fifteen, maybe twenty dollars a month; other villages nothing. Now, through a federal grant, some of the village Medical Aides receive a stipend of around \$200.00 a month, administered through the Alaska Federation of Natives and the local village councils.

The backbone of the Medical Aide system is the short wave radio. It is the only means possible to provide relatively continuous medical care for the isolated villages. Each day, physicians at the various PHS hospitals conduct regularly scheduled radio medical traffic in which the Medical Aides call in to the physician at the hospital and report medical problems which have arisen in the community. The physician then directs the Medical Aide in treatment, or, if he judges the problem serious enough, arranges for charter planes to pick up the patient (weather permitting). Officially and superficially, the Medical Aide is simply a person who reports problems and follows the physician's instructions: in other words, the eyes, ears and hands of the doctor. This is fine in theory, but in fact falls far short of the awesome responsibilities which the Medical Aide must assume. Both the doctors and the villagers force the medical Aides to assume a responsibility which is far greater than simply reporting disease.

Let's look at a situation as it might exist, for instance, in the Nelson Island villages of Toksook Bay or Nightmute on the Bering Sea coast. These villages are an hour and a half from Bethel by air. During the summer months they are relatively accessible except for an occasional bad day. During winter months, sometimes two, maybe even three or four weeks can go by before an airplane can get in, because of winds, fog and

storm. In addition, during both freeze-up and break-up there are no landing facilities in the village for about two weeks. Their only other means of communication with the outer world is a short wave radio, but there are occasionally periods of two or three weeks when radio communication with Bethel (the nearest PHS hospital) is essentially non-existent, due to static and interference. Day after day I have sat at the radio in Bethel hospital, listening as Toksook Bay or any one of a dozen other villages call in. I could hear enough through the static to identify the village that was calling, but any message was a garbled blurb of noise. The Medical Aide on the other end might be trying to report a runny nose, or maybe a man with his leg shot off or a baby with meningitis. At any rate, the Medical Aide was all on his own, a very lonesome own.

So here we have in the village a person who is conscientious and responsible. A person who has been given a charge by the doctors to be their eyes, ears and hands during the fifty-one weeks of the year that no doctor is in the village. Here this person sits in the village, wind blowing at 40 knots, visibility zero over zero, and the radio a mass of static and noise. In front of the Aide is a baby with a temperature of 104 degrees and two worried, upset parents. The Medical Aide is forced to do something. He or she knows that the doctor frequently prescribes penicillin on the radio so the Medical Aide gives the baby penicillin. If it is a particularly bright Medical Aide, who has seen meningitis or perhaps suspects meningitis, the Aide may give the baby penicillin twice a day or add sulfa, tetracycline or any other available antibiotic which may be in the village medicine kit until such time as the baby can be taken to the hospital, or at least reported on radio traffic. Most of the time the Medical Aide is right and makes the right choice and the patient does well. But oft-times luck doesn't hold and the Medical Aide has a death to report to the doctor whenever the radio clears. If the patient the Aide treated does well, nobody thinks much about it because that is what the Aide is supposed to do. But if the patient dies, the villagers may recognize the problem and accept fate for what it has done; but occasionally the Aide is tragically blamed for the death of the child.

One instance which occurred in a small village on the mouth of the Yukon River stands out clearly in my memory. The Aide was the mother of eight children and had been Medical

Aide for about seven years. We considered her one of the best Medical Aides. She was capable, responsible and intelligent. She kept meticulous medical records of all that she did and had attended two or three sessions of training with physicians at the Bethel Hospital. She did an excellent job of providing care for her village. One day she called on the radio to report a boy of about ten with jaundice. He apparently had hepatitis which was present in the village at that time. As the boy didn't seem too ill, the doctor on radio elected to treat the boy in the village, as was the custom, with a lecture on hepatitis and some instructions on disposal techniques. The next day she reported back to say that the boy seemed a little sicker and was getting very yellow. She, however, stated that the weather was quite bad in the area. On the third day the Aide reported back that the boy seemed quite ill and was vomiting. However, the weather was unflyable. For the next three days in a row the Aide reported each day on the boy's gradually worsening condition. On the fourth day the storm broke and a plane picked up the boy and brought him to the hospital. He arrived moribund and in hepatic coma. He was transferred to Anchorage where exchange transfusions and other measures were unsuccessful. The boy died in Anchorage.

The unfortunate Medical Aide was blamed for the boy's death. The villagers felt that she hadn't done a good job of reporting the boy and that she hadn't cared for him properly despite the fact that she had meticulously carried out our instructions and literally had sat with the boy, day and night. At any rate, the Aide was deposed from her position and essentially became an outcast in the village. She and her family have now moved to another village because of the blame and scorn that was heaped upon her. This unfortunate woman bore the full brunt for something of which she was completely innocent as she could have done nothing else. She was blamed because she was the Medical Aide and the Medical Aide was helpless.

What training do the Medical Aides have to prepare them for this tremendous responsibility which they have been given? For the most part their training has been meager or non-existent and in the past has been the responsibility of local bush hospitals and individual physicians. The larger bush hospitals such as Bethel and Kotzebue have occasionally conducted one or two week training courses for the Aides but these

courses have been irregular and inconsistent and their quality has been entirely dependent on local talent and interest. The Public Health Service is just now beginning to develop a coordinated program as described by Mr. Donovan Shook in *Alaska Medicine*, June 1969. In the future an additional source of Medical Aide training may come through OEO Health Corporations such as the one which is starting at Bethel. However, currently the bulk of the responsibility for Medical Aide training remains with the individual USPHS physicians at the various bush hospitals.

Here then, we have in the state a significant group of people with limited knowledge and background who essentially, through no fault of their own, have been given a really awesome responsibility with almost no support, training, recognition or protection. Currently the Medical Aide exists in a vacuum. They are not recognized by the state, essentially unheard of by the State Medical Association, unknown to the State Legislature and unadmitted by the Public Health Service.

The need to develop an adequate, consistent and continuing training program for the Medical Aides is obvious, but in addition to that there is a real need to provide recognition, control and legal protection of the Aides in terms of licensure and legal definitions of their limits and responsibilities. This recognition, licensure and control will, in the future, have to extend beyond the Medical Aide working in remote, isolated villages. Already some Alaskan physicians are beginning to look to Medical Assistants for increased support. In addition, the tremendous activity in isolated areas of the North Slope is creating a demand for medical care, or at least expert first aid. The oil companies are even now beginning to hire and use medical corpsmen to fulfill this need. Nor is the practice in using medical corpsmen unheard of in Alaska. Many canneries operating in remote areas of the Alaskan Peninsula have long made extensive use of their medical expertise. For most part these men are well qualified and dedicated, but again, they exist in a professional and legal vacuum, while occasional rumors of mistreatment accentuate the question of control and licensure.

There is no concerted active program to encourage our bright young people to enter Medical Aide work as a career, nor is there any specific training program available to them outside of the nursing schools. There is a real need and opportunity for some agency or

institution to develop a program to train young people in Medical Aide and Health Aide work, including ancillary fields such as sanitation, environmental health, social service and mental health. Such a training program might perhaps be modeled after the armed forces medical corpsmen system. Not only would this training program provide capable and trained Medical Aides or Assistants, but it would also provide a most useful and challenging career for many bright capable young people from the villages.

The pitfalls, difficulties and barriers standing in the way of development of such a Medical Aide program are horrendous. For as these newly emerged, bright, shining Aides start across the great Western Desert of hard facts they run afoul of several sinister characters in the badlands scattered throughout the Desert.

First across the Professional Mountains they run afoul of a most angry and hostile tribe, the Professional Nurses, headed by none other than Chief Greatbustle. The nurses sense imminent danger arising from this strange and unknown creatures, the Medical Aides. They sense a threat to their standing and deeply resent that a good Medical Assistant with less years of training and, horror of horrors, without a degree, could perhaps command a greater income or even a greater degree of respectability than a nurse. The nurses therefore lie in wait ready to pounce on this newly emerging menace. If the Medical Aides should survive the Professional Mountains, they may run afoul of the sinister inhabitants of Greedy Gulch, chief of whom are Simon P. Goldhorde and Dr. Takeall Cutdeep. Far from wishing the tender Medical Assistants ill, our two inhabitants of Greedy Gulch welcome them with open arms. Mr. Goldhorde is the administrator of a rather large, profit-making hospital which runs a huge emergency room service. He would dearly love to acquire a group of tender young Medical Assistants to work in his hospital and staff his emergency room. Dr. Cutdeep is an extremely busy practitioner and would dearly love to have a Medical Assistant or two to do some of his dreary but highly profitable tasks such as routine physicals, simple office procedures, or the day to day scutwork which seems to fill a physicians life and pockets. Should the Medical Aides survive the Professional Mountains and Greedy Gulch, they must then cross the Temptation Badlands, and face the Great Isolation. Many of them would be working alone for the greater part of the year, and would probably have little professional

contact and little on-the-job training or control. They would constantly be tempted to exceed their capabilities and training, while by isolation and lack of communication, their abilities and judgement might gradually slip and deteriorate.

Immediate solutions to the problem of providing improved quality Medical Aides lie with the Public Health Service. Outside of sage advice in our learned journals, there is little we can do to influence Public Health Service decisions. However, in terms of long-range thinking and planning for a Medical Aide-Medical Assistant program within the state, there is much we can and should be doing. The first major step, of

course, is recognition of problems with a search for solutions. The problems are complex and perhaps not even defined. There is room for genuine discussion on whether the Medical Aide is part of the answer to the need for medical care in villages and remote areas. If the Medical Aide is the answer, what support, recognition and regulation of these Aides will be required? What programs for education can be developed and who will be responsible? How can private medical resources and state health and education agencies mesh with the Public Health Service to provide the best and most effective care for all Alaskans?



"Lone Musher"

26 by 32 oil painting on masonite

by Fred Machetanz

Loaned by Mr. and Mrs. Pat Kautsky

This painting was commissioned by one who wanted something that would show the vastness and grandeur of Alaska, its mountains and scenery and its loneliness, I felt a single figure such as this dog team driver walking ahead of his team and breaking trail amid the huge river valley and mountains might possibly do it. Originally in the foreground was a huge snow bank, possibly one or two trees. These took away the feeling of the tiny figure so added trees, but still the figure was not too well seen. I then put the cast shadow on the river bed, moving it closer to the figure several times. Then the line of trees in the foreground was too strong so added more trees, broke their line with closer trees and finally thought I should stop so this is it.

Fred Machetanz.

THE ENVIRONMENTAL HEALTH PROGRAM OF THE ALASKA AREA NATIVE HEALTH SERVICE

By Charles R. Bowman, P.E.

Chief, Office of Environmental Health
Alaska Area Native Health Service
Anchorage, Alaska

BACKGROUND

Environmental health is that part of the field of Public Health which involves itself with the control of man's immediate environment in such a manner that the environment does not add to, or adds minimally to, man's health burden. Historically, this has meant controlling the environment through change or in preventing degradation of it. As the environment continues to increase in complexity, the environmentalist must become ecologically oriented as he will no longer be able to control just the environment to avoid any increase to the health burden, but must be in a position to evaluate man's more refined response to that environment in order to make critical judgments on its — the environment's — suitability.

Today in the broad field of Public Health, we are concerned with the impact on man and his response to air pollution, water pollution, radiation burden, noise, and food safety to name a few. How do these relate to the Alaskan Native? It involves two major conceptual changes. The Native can no longer utilize aspects of his environment as he formerly did. For example, as the Alaskan environment becomes more crowded, more industrial, the water for drinking becomes less pristine, not necessarily polluted or contaminated in the common usage of the word, but it cannot be safely utilized directly from the source without further safeguards. Secondly, the Natives' total environment is restricted in contrast to a former land area that was nearly indefinable and where there was little restraint, economic or other, on movement within the environment. It could be left for another and on return at a later time would still be ostensibly clean. No longer can this happen. The people have needs — employment, a store, a school, a church — and so they continue to live in the same immediate environment with few, if any, facilities to "clean"

that environment or retain it in a "clean" condition.

Our mission, as the Office of Environmental Health is twofold, primarily to work with the rural Alaska Native to furnish guidance, direction, and assistance in relating to an adverse, changed environment and secondarily to coordinate with other Federal and State agencies programs which may have an effect on the Alaska Natives' environment.

The adverse environment is a common problem of rural Alaska. This manifests itself not only in the climatological effects of the environment, but also makes its mark in the Native community through inadequate and unsafe water supplies, inadequate and poor waste disposal practices, and substandard housing. This total inter-relationship contributes to the incidence of environmentally related disease materially adding to the problems associated with the management of disease. Even in the relatively sophisticated facilities of the Bureau of Indian Affairs and U.S. Public Health Service, there is a constant need for the detection of situations which may lead to environmentally related disease within the agency complex, population or patients under care.

ENVIRONMENTAL HEALTH SERVICE

There are two components of the Office of Environmental Health. The first, an environmental control activity designated as the Environmental Health Services Branch, involves itself with the delivery of advisory and consultative technical services to the Alaska Natives in family and community groups. These services include food sanitation, vector control, water supply sanitation, waste disposal, accident prevention and other classic sanitation services which do not involve regulatory authority. In addition, this branch provides advisory services to

the Bureau of Indian Affairs, Department of the Interior and to other programs of the Public Health Service, and coordinates and exchanges service with the Alaska Department of Health and Welfare as set forth in the Memorandum of Understanding on matters pertaining to the control of the environment.

The program is varied in that the people involved in it may one day be assisting a Native homeowner to solve his water supply problem and the next day may be sitting on a hospital infection control committee or working with sophisticated electronic equipment in the surveillance of radiation exposures.

Motivation of the Native people is the key word in the entire program to bring about change in the environment. The people will react to it by evolution of attitudes toward the no longer safe environment which surrounds them and in which they must live and interact.

SANITATION FACILITIES CONSTRUCTION

The second major component or branch of the Office is the Sanitation Facilities Construction Branch. This involves a direct assistance construction activity which is authorized in Public Law 86-121 enacted by Congress in 1959 and is carried out in cooperation with Alaska Native groups and communities. A basic approach of the sanitation facilities construction program is to help the Native people help themselves. Using this approach, the basic objective of the program is to have a safe water supply and a satisfactory method of waste disposal in every Alaska Native home. This objective is sought through construction, in cooperation with the Native groups, of adequate water supplies and waste disposal systems, either individually or in a village complex.

There are 150 Alaskan villages which have a population between 80 and 100 per cent Native. A total estimated cost to serve these villages in a

joint construction activity to provide adequate sanitation facilities, is approximately \$50,940,000. To date \$8,000,000 has been invested in 60 projects to provide adequate water supply and waste disposal facilities. These projects range from simple watering points to complex recirculating water systems, from individual sanitary privies to community sewage collection and disposal systems.

Under present policy utilizing accepted systems of priorities, \$43,000,000 worth of unmet construction needs exist plus the untold hours and dollars to be invested in the program by the Alaska Natives themselves. Currently there are 81 project proposals from villages on file in the Office requesting assistance for participation in the construction of joint sanitation facilities. In fiscal year 1970, however, the tentative appropriation is \$497,000, sufficient only for the construction of three projects. At the present level of appropriation, it will be many years until the Alaska Native community can be assured of a basic level of sanitation exemplified by adequate and safe water supplies and a safe method of liquid disposal.

We realize of course that the present status of our Native population is subject to much change such as migration to larger population centers and settlement of the Native Land Claims with subsequent benefits. These changes can and should be considered in estimating this need and will most certainly affect it and the approach to the problem.

CONCLUSION

Hopefully the village environment can be healthfully utilized through the temporary methods which involve minor changes in the environment but more so in the way the Native relates to his environment. Finally, a basic level of environmental control will be reached in each rural Alaskan village which will permit its people to live in a "clean" environment and have the resources to maintain it in a "clean" condition.

COMMENTS ON THE U.S.P.H.S. ENVIRONMENTAL HEALTH PROGRAM

By Paul Eneboe, M.D.

Perhaps the most complex and perplexing health problem facing Alaskans today is environmental health, particularly in remote villages of the tundra and forest. Climatic problems are severe, while grinding poverty precludes significant local initiative or financial participation. At present, essential money and know-how for progress in environmental health comes from the federal government through the U.S. Public Health Service.

The difficulty in meeting even the most primitive environmental health needs is compounded by the impermanence of many of the smaller villages, which are dependent upon the vagaries of subsistence fishing and hunting. Recent oil discoveries have accelerated Native migration into larger communities with better economic bases and living conditions. The small village is currently quite unstable, and many which now exist will disappear in the next years, although new villages will undoubtedly also appear. The coming years will see major changes in the Alaska economy and way of life, particularly affecting the Alaskan Native. The time is now ripe for an evaluation of past accomplishments and errors and a reorientation to new pathways and goals.

There is no doubt that the Public Health Service and the Office of Environmental Health have done a tremendous job in beginning to provide adequate environmental health services, in terms of drinkable water and adequate sewage disposal, for many of the Alaskan villages. There is a tremendous amount yet to be done. However, I cannot help but reflect on many of the villages where Public Law 86-121 projects have been carried out, and reminisce on the not insignificant number of villages where the project was essentially worthless to the Native. Far too many times the projects have been put into a village with little or no preparation of the villagers. Frequently the projects put in have been so inconvenient that they simply have not been used. Many times have I opened the door of a clean white gleaming out-house only to find it stuffed full of dried salmon, and many are the wells dug in the various villages that now stand

empty and unused or broken down because no one in the village knows how to fix them, or because of the bad taste of the water. After all, who wants to go out and sit on a cold board at 50 below zero when there is a nice warm honey bucket behind the stove, or who wants to drink bad tasting brown water when less bad tasting and less brown water can easily be obtained from a nearby lake.

A good example of the fiascos that can develop with inadequate preparation and lack of coordination occurred in the village of Kotlik. Some three or four years ago it was decided that a large water storage tank was just what the village needed. This decision apparently was reached where the majority of village decisions are reached, in Anchorage, and for the most part by people who really hadn't spent much time in Kotlik or, in fact, had never even been there. At any rate, it was decided that Kotlik needed a water tank and preparations were made. The arrival of materials and construction foreman unfortunately coincided with a heavy period of salmon fishing, so there was some difficulty in obtaining enough men to build the water tank. However, eventually such minor difficulties were overcome, a construction crew was formed, and the water tank built. The large and gleaming wooden edifice, surrounded by steel bands, looked most impressive on completion. Then the trouble began. A dispute arose between the Public Health Service and the Bureau of Indian Affairs as to who would put a heater in the water tank, and after much confusion and fumbling, nothing was done. The water tank stood in the village, empty and useless (because of no heater) for about two years. Gradually the wood, of which the tank was made, dried and shrank until the lovely iron hoops holding it together sagged and fell to the ground, leaving the water tank standing not unlike an unloved and unused old maid with her bloomers around her ankles. Eventually, however, things were put to right, a heater was obtained, the tank was filled with water and lived happily ever after.

It would seem that much confusion and delay could have been avoided by a more

intimate involvement of the people in the village in the planning of their new facility, with an attempt to accommodate the building schedule to the village's convenience, as well as by more positive coordination between various government agencies responsible and village, to provide for effective maintenance and utilization.

While the vast majority of projects put in by the USPHS have been needed, wanted, well-done and well-maintained, there have been enough of the other kind to warrant several simple suggestions.

Before a project is begun, the following questions might be asked:

Is there a need? If there is a need, will the

proposed project meet that need or will it merely be a stop-gap or inadequate substitute?

Is the project wanted? Has adequate preparation and ground-work in terms of education been done so that it will be properly used?

Is it feasible? Nice as it may be for the villagers, it would be hard to justify a million dollar sewage project for a quasi-temporary village of a hundred people.

Major projects should be planned at the local or field level rather than in the relatively remote atmosphere of the Anchorage Area office, with planning and development based on close cooperation with village leaders and concerned Native organizations.



"The Nelchina Trail"

26 by 32 oil painting on masonite

by Fred Machetanz

This painting depicts an old timer back in the days of the gold rush toward the Nelchina. He is freighting his supplies via the dog team. He is wearing the old time Khaki cloth parkee cover over his fur parkee and his beaver or fur hat. His lead dog is a female who in many cases prove the better leader over males although not quite so large. The dogs are of the malemute breed with those masked markings that Service mentioned in his poems of the North country. In the background is one of my favorite scenic spots, the Nelchina Glacier with its various rivers of ice leading into the one main body. By Spring this trail has become packed down and solid much of the way. If the team got the sled or itself off this trail it could be well bogged down in three or four feet of soft snow, which has often caused many an unhappy driver to unload his sled to lift or pull it back on the trail. A gee pole or stick lashed to the front of the sled was often used by the driver to guide it from up front and thus miss this sad situation. Fred Machetanz.

Loaned by Mr. and Mrs. James Medema

FLUORIDATION FOR SEWARD

By Richard E. Williams, D.D.S.



Patient: John Q. Teenager
Chief Complaint: Recurrent Caries
Treatment: Repair, Remove and Replace
Rx. Brush teeth after each meal
Avoid between meal snacks — especially sweets
See dentist twice each year.

The above pattern is mundanely familiar to all dentists. Unfortunately the prescription is generally not followed and the cycle begins again; decay-restore, decay-restore. For the less fortunate patient it is decay-extract. There would be no new caries if patients followed the above prescription 100% correctly, 100% of the time. We know, however, that the majority of people do not possess the motivation to follow these rules, perfectly, all the time. It is for this majority that the benefits of fluoridation hold so much promise. Massive statistics confirm that dental decay is reduced up to 65% on children whose teeth develop while they are living in communities with fluoride in the drinking water at a concentration of 1 PPM.

In light of the above, the following effort was made to secure a community water fluoridation system for Seward, in 1968.

THE BEGINNING

The first step was to write for all available fluoridation literature. I wrote the American Dental Association, U. S. Public Health Service, and the Alaska Department of Health and Welfare. All were helpful, particularly the ADA.

The next step was to test my belief that fluoride did not occur naturally in clinically beneficial concentrations in the Seward water. A sample of the water was sent to Don Chemical in Anchorage for fluoride determination. Analysis showed a concentration of less than 0.1 PPM, completely inadequate to be useful in caries reduction.

LEGISLATIVE PROCEDURE

A visit was made to the city manager's office. It was imperative to find out in the beginning if he would be for, against or neutral on this subject. It turned out that he was in favor, although he had

been involved with an unsuccessful fluoridation attempt in another community. In that case the subject went on the ballot for the general public to make the choice, and it was voted down.

I explained to him that nationwide statistics would give us only a 40% chance of success if the proposal went on the ballot. For this reason, the approach of having the city council decide the matter was selected. However, even this would require a public hearing and so it was necessary to develop an education program for the public as well as the city council members. The city manager made it quite clear that the council would not vote on the proposal if there was much opposition to it at the public hearing.

Further discussion with the city manager disclosed that proposals for fluoridation had never been formally introduced in Seward. However, when chlorination of drinking water was advocated some years previously, it met considerable resistance and took several years to win local approval.

My next move was to compile the factual information I would need for an effective education program in the community. In addition to Don Chemical's recent fluoride analysis I learned that the U. S. Geological Survey Office had tested the water in Seward after the 1964 earthquake. Their findings were identical to those of Don Chemical; fluoride content did not exceed 0.1 PPM.

Walt Hedman, the head of the Seward Water Department, explained the cities tri-source water system and gave me a map of the system showing all significant components. I then wrote the Wallace and Tiernan Co. for the cost estimate and a description of the equipment and supplies that would be needed. Considerable correspondence ensued between Wallace and Tiernan and myself as they worked up their estimates. At last the figures were ready; total cost for equipment would be \$4,081.00 and the annual cost of adding the fluoride would be only about 20 cents per person!

Now, with these facts, I was about ready to begin the public education campaign. But first an

important task was necessary. I personally called each member of the city council and discussed the following points with him:

1) A brief description of Fluoridation and its need in Seward.

2) I advised them they would receive an information packet within the next week.

(The packet contained the following:

a. A letter to the councilman reminding him of our recent telephone conversation.

b. Notice that I would file a fluoridation resolution with the council in one month.

c. Summary of key points they should know about fluoridation.

1. It does reduce dental decay

2. Low cost

3. Proven safety

4. Endorsed by all major health organizations.)

3) Each councilman was advised that a publicity campaign was about to begin in which I would urge individuals and organizations to call or write their councilmen and request that the fluoridation resolution be passed.

THE CAMPAIGN

Publicity efforts were limited to personal appearance, speeches, and film presentations before various groups in town. All speaking engagements were scheduled in close proximity to one another. This was advantageous for several reasons:

1) Films on loan and rental from the ADA were needed only once, eliminating re-ordering, etc.

2) The school system's loan of the projector was confined to a respectfully short period of time.

3) My preparation time was kept to a minimum; i.e., after a thorough rehearsal for the first presentation, the remaining engagements could be handled with only minor refreshing and specific modifications for each group.

A presentation was made before the PTA, Chamber of Commerce, the high school health classes, Medical-Dental Staff of Seward General Hospital, Board of Trustees of Seward General Hospital, BPW of Seward, and the Anchorage Dental Society. I asked each group to have their secretary write the city council voicing their approval of the fluoride resolution. In addition, I asked all interested individuals in each group to write the council and urge immediate adoption of the resolution.

There were other areas to seek support. The

local Public Health Nurse, Mrs. LaPreal Bie, was strongly in favor of fluoridation and wrote a lengthy letter to the city supporting fluoridation. John Kuhn, Supervisor for Environmental Health Services for the Alaska Department of Health and Welfare, wrote the city council and urged them to act in favor of fluoridation. In addition, he cited Title 7, Chapter 2 of the Alaska Administrative Code which states the desirability of having fluoride in the drinking water at a concentration of 1 PPM. Last, but not least, my own secretary and dental assistants were "indoctrinated" with the film, printed literature and my own enthusiasm. They proved helpful by writing letters to the city council, talking with their friends and eventually appearing at the public hearing.

PUBLIC HEARING

As the publicity campaign was getting started I submitted a formal request to the city council asking that a community water fluoridation resolution be placed on their agenda. When my letter was read at the next council meeting they voted to have a public hearing on the resolution. It was decided that if the response was positive enough at the public hearing they would decide the matter by a council vote.

Although the hearing was publicized on the radio and in the newspaper, I felt compelled to make a few phone calls the night before the hearing. Throughout the campaign I kept a scorecard of those people who seemed genuinely interested in getting fluoridation for Seward. I called these people to remind them of the hearing, stressing the importance of their presence.

There was a very good turnout for the hearing. During the discussion period, several people gave testimonials, as to how fluoride tablets had helped their children have healthy teeth and far fewer cavities than they themselves had had at such an age.

Mr. John Kuhn, mentioned earlier, drove to the hearing from Anchorage. Also, coming from Anchorage for the hearing were Drs. Robert Smithson and Frank Dorsey. Drs. Smithson and Dorsey gave clinical impressions of the value of fluoridation since it had been introduced in Anchorage. They also gave statistical and factual information about the fluoridation equipment and its operation in Anchorage. All the out-of-town guests respectfully noted that they were not there to try to influence those at the hearing, but merely to provide factual information on the subject of fluoridation in general and in particular about its

use elsewhere in Alaska as a sound public health measure. There was no opposition to the resolution during the discussion period. The mayor then asked all those in the audience who wanted fluoridation for Seward to stand. All local people stood showing the council their unanimous approval. The council then voted and passed the resolution.

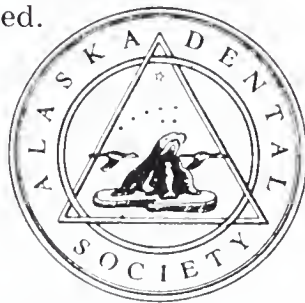
At that time the city budget was so overburdened that it could not possibly assume the initial costs of the system. This problem was resolved by adding a one dollar monthly assessment to each water utility bill in the city. This assessment was to terminate as soon as the equipment was paid for, or at the end of 18 months, whichever occurred first.

CONCLUSION

It was originally hoped that the equipment would be purchased, installed, and operating before the "termination dust" was upon us in 1968. However, it was not until the fall of this year, 1969, that everything was ready. On November 20 the city manager told me that as soon as a representative of the Alaska Department of Health and Welfare had checked the system, they would begin fluoridating. It is quite probable that the system will be operating before this issue of Alaska Medicine has been printed.

AURORA DENTATUS

By R. A. Smithson, D.D.S.



In October Dr. Tom Lewis and his University of Washington Department of Continuing Education brought to Alaska the major theme of Preventive Dentistry. Dr. Robert Barkley explained his system of patient education utilizing Sumpter Arnim's and C. C. Bass' work as the base on which he builds his control program. Patients that are sincerely concerned in maintaining good oral health, in preventing caries and periodontal diseases, can be taught simple and thorough methods of cleansing by which control is possible and certain.

Dr. Barkley first reinforces the patients' desire to keep their teeth, then proceeds to explain plaque formation, plaque morphology, its destructive abilities, and finally its location on

ANALYSIS

More than 70 million Americans enjoy the benefits of fluoridated drinking water. It is unfortunate that some communities have been denied this public health measure, because it was defeated at the polls. Deciding whether to institute fluoridation should be an easy decision for a voter, but frequently he is confused and sometimes frightened by the distortions, lies and intimidations of those extremists who militantly oppose it. In addition to lessened chances of success it requires much more time, money and effort to run a campaign when fluoride is to be decided by the general electorate.

It was only natural, then, for me to press for a city council decision on fluoridation. The public education program was designed to create an enthusiastic group of responsible citizens that would insure a successful public hearing.

Success must primarily be credited to the many good people in Seward. They were keenly interested during the education campaign. Opposition was either nonexistent or too apathetic to wage a fight.

Seeing the program through to its successful conclusion was the peak of personal fulfillment for me after being involved with the project for so many months.

teeth and methods of removal. Once "the enemy" is explained and visually demonstrated, the patient can defeat it. His straightforward and systematic approach, properly monitored turns the most neglected mouth into a picture of health in, at most, six days. Once the use of dental floss and Bass' toothbrush technique has eliminated the organized bacterial plaques, topically applied flourides harden carious lesions and the patient is "under control". Restorative work can be done at the convenience of the patient, for the urgency has passed. Several dentists in the area have implemented this control program in their practices with excellent results. A Committee of the Southcentral District Dental Society is attempting to get this program incorporated in the school system's health discipline, the State Welfare program and hopefully other agencies. If carried to completion, this will be a major step, a major breakthrough in patient education on a large scale.

THE EDUCATION AND CARE OF PILOTS

*Presented at the 24th Annual Convention
of the Alaska State Medical Association,
Fairbanks, June 4-7, 1969*

By J. Robert Dille, M.D.

*Chief, Civil Aeromedical Institute, FAA
Oklahoma City, Oklahoma*

According to FAA records, 2,942 pilots resided in Alaska at the end of 1968. This represents a 21% increase during the year and continued rapid growth is anticipated.

Alaska relies on aviation more than any other state. Many pioneering efforts in aviation have occurred here and numerous books and stories have resulted.

Physicians have been involved as pioneers in aeronautics since Pilâtre de Rozier, a French surgeon-apothecary, made the first flight in a free fire-balloon on October 15, 1783. John Jeffries, an American physician, made the first balloon voyage across the English Channel on January 17, 1785. Others, including Edward Jenner, were also active balloonists. However, their interests were in aeronautics and apparently none made significant observations on the medical aspects of flight.

There were no special medical standards when the U.S. Army purchased its first airplane from the Wright Brothers in 1908. This aircraft crashed on September 17, 1908, killing one pilot, Lt. Selfridge, and injuring Orville Wright. An investigation was conducted and it was determined that the pilot's death was due to a skull fracture caused when his head struck the aircraft structure on impact. A need for restraint and a crash helmet was noted. The military has had an active program of accident investigation, safety equipment development and physiological and survival training since the early days of military aviation.

During the first year of World War I the French and the British reported that 90% of their accidents were due to pilot failure vs. 8% due to mechanical problems and 2% due to combat; two-thirds of the pilot failures were said to be due to physical defects. Germany, France and England organized medical programs for the selection and care of pilots and research into the problems of flight. The British reported that physical deficiency accidents dropped to 12% two years after they formed a Care of Flyer Service. (Aerial combat began after the first year.)

Even with the decreased physical deficiency accidents, many aces are known to have had physical defects which we would consider

disqualifying. Roy Brown, who shot down von Richthofen, reportedly suffered from a chronic peptic ulcer and lived on bicarbonate of soda and brandy milk shakes. Elliot Springs is also reported to have had "chronic stomach trouble" for which he tried, alternately, milk of magnesia and gin until his symptoms were relieved. Karjus, a German ace, had only one arm. Zeumer suffered from tuberculosis ("consumption") so severe he prayed for death. Richenbacher underwent a mastoidectomy in Paris during the war. Guynemer, the French ace of aces with 53 German aircraft to his credit, flew soon after he suffered an emotional strain, a concussion, and a knee injury in an aircraft accident; he was never seen again. Veil, when asked why he stayed with the Lafayette Flying Corps after the United States entered the war, said that he could not qualify because of "a game leg, a stiff neck, a hole in my groin, and a blood disease among other things."

The U.S. Army wrote the first medical standards for pilots in 1912. The Air Service Medical Research Laboratory was established at Hazelhurst Field, Mineola, Long Island, in January 1918. The School for Flight Surgeons was formed under the Laboratory in May 1919. Among other duties, the flight surgeons were to advise pilots and commanding officers on nutrition, exercise, rest, recreation, and temporary excuse from duty.

To date, the military services have trained 17,328 flight surgeons.

In an elaborate safety program which includes high physical standards, numerous safety publications, and complete protective equipment regardless of cost or weight, education plays a prominent role. The trained flight surgeon assists in the periodic training of all pilots in the physiologic aspects of flight and in the operation of survival equipment. In addition, close attention to physical problems and counselling on physical fitness, nutrition, and the use of drugs and alcohol are usually provided. Ideally, attention is also given to family illnesses and other personal problems to help relieve concern that may preoccupy the pilots' thoughts.

The percentage of military fatal aircraft accidents due to human factors causes is about one-half that for general aviation fatal accidents. However, these cannot be compared directly due to such variables as combat, higher performance aircraft, and higher pilot selection standards.

For 603 fatal accidents in U.S. general aviation during 1967, the pilot was a cause in 83.91 percent and other personnel were a cause in 7.63 percent. For 6,115 total accidents, these figures were 81.55 percent and 7.93 percent, respectively. In addition, the cause was undetermined in 7.96 percent of the accidents.

In contrast to the military programs, training in the physiological aspects of flight is not required for, and rarely offered to, general aviation pilots. Except for the residency training program in aerospace medicine at Ohio State University, there has been no adequate way for civilian physicians to receive training in this specialty. Training for both pilots and physicians has been virtually limited to those with previous military service.

We feel that the civil aviation safety record can be significantly improved through appropriate education as well as through medical standards and a medical certification program.

Education of Civil Pilots

Disorientation, pesticide toxicity, alcohol, drugs, and carbon monoxide are among accident causes which can be decreased through education. Hypoxia and hyperventilation are frequently discussed but have rarely been the determined causes of civil aircraft accidents. However, the recent, rapid increase in higher performance aircraft in general aviation has produced many examples of decompression of pressurized aircraft and some fatal attempts at unpressurized flights above 20,000 feet without oxygen. These latter flights have usually involved experienced pilots. Also disturbing are comments such as "flight at high altitudes keeps the kids quiet"; "the air over the Rockies is dense air from lower altitudes swept there by updrafts — it is thus richer in oxygen and no oxygen equipment is needed for flights there"; and, from a high company official, "our unpressurized aircraft have reached 41,000 feet without any oxygen equipment."

Last year, 1,651 civilian pilots received physiological training, and experienced hypoxia and a rapid decompression, at CAMI and 30 cooperating military physiological training units.

Although this program has been well-received, this number represents less than 0.25 percent of active pilots. Some larger flight schools and some aircraft manufacturers now include this training in their pilot courses.

Lectures on this subject have been given to all recent FAA air traffic control students, in FAA-NTSB accident investigation courses, at many flight instructor clinics, and to some accident prevention courses.

Project 85 is a new FAA aircraft accident prevention program which is being tried presently in the Southwest and Central Regions. CAMI personnel have instructed each of the investigators in this program, have spoken at some of their larger meetings and have provided films, slides, brochures, and textual materials for use in their presentations. Recent graduates have already arranged several physiological training sessions and pre-season cholinesterase determinations for local aerial applicators.

Aviation Medical Examiners and Regional Flight Surgeons also have the same materials available for presentations to pilot groups.

Brochures on such topics as hypoxia, oxygen equipment, disorientation, alcohol, and vision are available for distribution at pilot safety meetings and in AMEs' offices.

Films are a popular tool in the education program. "All it Takes is Once", on the psychological problems of flight safety, is nearing completion and "Medical Facts for Pilots" is in the script-writing stage.

A handbook covering medical information for pilots is needed. Questions on the airman written examinations have been suggested to encourage familiarization through physiological training courses, lectures, or, at least, studying a handbook.

Exhibits have been prepared for medical and airman groups emphasizing accident investigation, impact protection and restraint, alcohol, vision, disorientation and current research. One current exhibit features slides and a tape on hypoxia, an oxygen equipment display, disorientation and the chance to ride in a new disorientation demonstrator, the "Vertigon". The "Vertigon" was developed commercially after CAMI scientists briefed representatives of a flight simulator manufacturer on the need for such training.

In addition to accident prevention, occupant protection when accidents do occur must be considered in the total approach to improved aviation safety. Pilots need more information on

the advantages of adequate restraint systems, and pilots and aeronautical engineers need greater awareness of aircraft crashworthiness problems. Crash-injury correlation data which document those problems should be collected during accident investigations and used in educational and research programs.

Education of Physicians

The FAA depends upon approximately 6,400 designated Aviation Medical Examiners to perform 500,000 physical examinations on 700,000 active pilots this year. Over one-half of the AMEs are pilots and/or former military flight surgeons and thus have considerable knowledge and interest. Even these need information on our standards, procedures, and special programs such as accident investigation and airman education. Other examiners, though competent physicians, usually need more information on aviation physiology, phoria testing and other related topics. For this reason, attendance at a three-day seminar within one year after designation and every five years thereafter is required. AAGP credit is given and travel and per diem are paid.

It has become increasingly apparent that we must rely on our examiners not only for thorough physical examinations but for participation in general aviation fatal aircraft accident investigation and for lectures to pilot groups on the physiology of flight.

Aircraft accidents occur too randomly in time and place to investigate medically from even a Regional office. However, only from the human factors investigation can we learn of the adequacy and need for impact protection (including restraint), regulations, education and research. Autopsies and toxicologic studies to determine crash-injury correlation and involvement of drugs, alcohol, pesticides or carbon monoxide can best be arranged locally in advance. Information on medical or psychological factors can also be determined best locally. Such participation need not be a burden to the AME for one accident each ten years would be the pro-rated share for each examiner if all participated.

Similarly, a centralized airman education program with anything approaching present resources will not reach significant numbers of pilots. Present lectures at safety meetings and refresher courses, unfortunately, reach those who are most safety conscious — often repeatedly. It is hoped that more of those who need the information can be reached by evening or

weekend presentations to flying clubs and student pilots by AMEs who are accepted as local authorities because they are pilots and/or examiners.

To attempt to achieve these aims, the first of a new series of five-day advanced seminars was held at CAMI, April 14-18, 1969. Topics which received increased emphasis include physiological training (complete with a chamber flight), flight orientation, accident investigation, and preparation and delivery of a short lecture. Most of the sessions were conducted for groups of 12 from each of the five largest regions who were accompanied by their Regional Flight Surgeon to foster a closer working relationship. It is encouraging that, despite the length of the course, of 60 invited, 54 attended and two of six who did not called with regrets due to personal emergencies. Reception of the first course was little short of overwhelming. Even so, continued improvement is anticipated.

The other major phase of our professional education program is the residency training program in aerospace medicine which CAMI conducts in conjunction with the University of Oklahoma Medical Center.

Aviation (later aerospace) medicine was recognized as a sub-specialty of the American Board of Preventive Medicine in 1953. As of June 1969, 284 physicians will have completed military three-year residency programs. Until June 1967 the only civilian program was at Ohio State University where 29 physicians will have completed the residency program by June 1969.

The only other civilian program was approved at the University of Oklahoma in June 1967; three residents have just completed the first year and three the second year of this program.

The increased volume and complexity of civil aviation activities and the very active space program have produced perhaps the largest backlog ever of duties and unresolved problems in the field. It has been estimated that 125 to 150 additional fully-trained specialists in civilian aerospace medicine will be needed by airlines, aircraft manufacturers, and government by 1975. In addition, private practice at airports is becoming more popular and successful.

Summary

Aircraft accidents can be made more survivable through applying the findings of accident investigations and research to aircraft design, pilot education and regulation.

Of far greater importance is the potential prevention of many of the human factors accidents which account for approximately 85% of the fatal accidents in general aviation. Adequate pilot selection standards, flight training and education of pilots and physicians regarding the physiological hazards of flight are important. A basic understanding of the effects of

environmental factors (hypoxia, pressure changes, heat, cold), drugs, alcohol, toxic chemicals, physical conditions, disorientation, stress and fatigue is indicated.

Education can best be accomplished through participation of the Aviation Medical Examiners through lectures, brochures and discussions with the airmen.



"In Whaling Waters"

26 by 32 oil painting on masonite

by Fred Machetanz

This would be in the arctic area of Alaska probably in the Pt. Hope portion where the umiak are around 19 feet long and where whaling used to be their key way of life. I thought a view of the umiak from this viewpoint might be interesting, showing the harpoons at the prow ready to be thrust into the whale, the sealskin float with the rope wrapped around it ready to be thrown in the water at the same time the harpoon was delivered. It is attached to the harpoon by rope so if the whale dies the float comes up and helps spot where it is. The shadows of the umiak and crew make the waters of the arctic become alive with their patterns. Due to the ice fields, there is little wave motion at this time of year. Fred Machetanz.

Loaned by Mr. and Mrs. James Medema

ON VIDEOGENIC DISEASES

By A. von Hippel, M.D.

Flying Saucers Revisited:

New and interesting side effects of regular T.V. viewing continue to crop up. A careful private reinvestigation of all North American "flying saucer" reports of the past five years has revealed that in every case such reports originated with individuals separated by chance from their television set during regular viewing hours. After this finding was presented at a national conference, a number of crash programs were launched to identify related factors. Many chronic T.V. viewers have since been found who suffer from a gaze inversion (T.V. stare) and actually do not record the programs screened. Serial EEG's taken on such "susceptibles" display specific rhythmic diencephalic discharge patterns associated with pleasurable sensations, initiated by flickering lights. On sudden withdrawal of such regularly scheduled flickering lights, this Type "B" viewer is subject to colored scotoma's, aura's, organized hallucinations and occasionally even petit-mal seizures.

Educational T.V.:

The national ongoing study of chronic viewers has demonstrated progressive deterioration of reading skills in that portion of the viewing public previously able to read. Because of the continued zero Nielson rating of educational T.V. programs, and this progressive nationwide loss of ability to read, educators are now pressuring producers of popular programs to include simple subtitles that might stimulate or support reading interests. So far they have met with little success, however, as the producers rightly point out that a majority of their public could not then follow the program. Much work remains to be done in this area.

Riot Aggravation by T.V. Coverage:

The allegation of observer-altered events is an old one to students of animal behavior. Recent news columns have accused television producers of aggravating racial tensions by unbalanced coverage and even semi-staged mini-riots. The third volume of the report of The Presidential Fact-

Finding Committee On T.V. Violence And Riots has dealt exclusively with this lesson. Several recommendations of this panel have now been incorporated in a multimillion dollar R & D (Research and Discipline) project. Under this project, code-named "Woodshed", technologically advanced portable video-barriers and jammers have been developed for use in preventing T.V. coverage of inflammatory mob scenes or areas of potential violence.

Radiation Hazards:

The rapid public acceptance of color television in the face of significant radiation hazard has engendered much concern among public health workers. Despite alarmists, however, it has become apparent that there is little risk of leukemia or genetic damage from color television if exposure is limited to 10 hours per week at an average viewing distance of 25 feet, if the 24" color tube is coned down to 12", if family film badges are regularly developed, and if occupancy of rooms behind and below the set can be avoided during viewing hours. Also encouraging is the fact that both the T.V. industry and the National Institutes of Health have embarked on major research programs in the interest of greater public safety and longer permissible viewing hours. A particular effort is currently being made to develop highly susceptible strains of mice and canaries which would reliably expire as an early warning of set malfunction, before the viewer became seriously irradiated. Although such radiation sensitive mutants are now available and breeding true, there is still an unacceptably high rate of false positives, apparently attributable to program quality. A reliably program-resistant radiation-susceptible mouse or canary is currently just not available, but can confidently be anticipated within the next five viewing seasons, provided federal support continues at current levels.

Program Toxicity:

Cooperative studies are now under way at several mouse and canary centers, designed to isolate the identify program toxicity factors.

Identification of such factors is made more difficult by unknown lag periods and dose-level responses. However, computer analysis is expected to permit isolation of more toxic programs which can then be varied in their format for further characterization of contents.

One problem that has cropped up repeatedly in these studies is how to ascertain when the viewing animal or person is dead (prior to decomposition). Diagnosis of death of the viewing animal cannot always be made by observation alone. This finding has played a central role in several landmark Federal court cases; e.g. Applejack vs. the State; and Inosy vs. Unotink. In both of these alleged murder cases the defense was able to provide witnesses who swore that the deceased was observed some hours or days after his alleged murder, observing television in his customary position. In both cases, however, the prosecution was able to establish (1) an earlier time of tissue death and (2) that the average person cannot tell a live T.V. viewer from a recently dead one. In fact, in the latter case, extensive research revealed that the Nielsen rating of a certain program was artificially inflated by the vote of several persons recently deceased. Although the program reported was actually being screened, and they were noted to be in their customary position before the set, the court ruled, over defense objection, that as recently deceased persons, they could not be held to have selected the programs shown.

The Great Northeast Power Failure:

A relatively recent engineering mystery, the great Northeast power failure (thought by many somehow related to flying saucers) has been resolved! Although engineers have been unable to explain the sudden power surge and then excessive power drain that darkened the entire Northeastern United States and Canada so recently, social science has now come up with the answer.

All observers have agreed that the power outage was due to a sudden surge of electricity, followed by an extreme increase in power demand. Also public knowledge is that the time was "rush hour". As now reconstructed by social

scientists after extensive surveys and thousands of interviews, these power variations were T.V. dependent and began with 60 million television sets tuned to that popular housewives' program "Guess Whose Shoes Are Under My Bed" (Nielsen 98%). "Shoes" was to be followed by a panel discussion by noted authorities on antediluvian pragmatism. As now reconstructed, events were as follows:

5:26 P.M. "Shoes" ended and the regular 8 minute commercial started.

5:26:20 to 5:26:40 P.M. 59 million T.V. sets shut off (power surge).

5:27:10 P.M. 108 million electric burners turned on (power drain).

5:27:40 to 5:27:50 P.M. 50 million electric ovens on for T.V. dinners (power drain).

5:28:05 to 5:28:35 P.M. 50 million refrigerators opened (power drain).

5:28:45 (power outage).

This power outage is merely one example of the power of television to synchronize normally random events. Another tragic example is the 17 New York sewer workers recently swept to their deaths when 8 million toilets flushed simultaneously at the end of a popular "one hour special" program. Many suggestions on how to deal with such problems have been sent in and several are summarized below:

1. Commercials should be staggered to avoid such dangerous coordination of population activity.

2. The U.S. Disaster Office should be empowered to cancel any program with a Nielsen rating over 40%, or alternatively such a program might be shown on a staggered schedule on all stations simultaneously.

3. Realism should be promoted on T.V. For example, sell syncro-smellye packages to go with mob scenes, commercials, etc. Thus "essence of locker room" would be released automatically when watching flower children, and "old ashtray" would be recirculated during cigarette commercials.

4. Include excessive color T.V. viewing in the list of acceptable indications for therapeutic abortion.

5. Avoid T.V. coverage of important events.

PAIN IN THE UPPER EXTREMITIES

*Presented at the 24th Annual Convention
of the Alaska State Medical Association,
Fairbanks, June 4-7, 1969*

By David G. Fryer, M.D.
Seattle

I will confine my comments to a limited group of conditions that cause pain in the upper extremities, namely, the entrapment neuropathies, sometimes referred to as the brachial neuropathies. It is important to take a broad view of this subject since at the present time a patient may be treated by a surgical attack on the wrist, the clavicle, the first rib or the cervical spine depending more on the school of thought of the specialist to whom he is referred than on the site of the lesion.

The symptoms of these entrapment neuropathies consist of numbness, tingling, aching and tenderness in the hand and forearm and sometimes in the upper arm, particularly in the region of the scapula. The symptoms are often aggravated by elevating the arm and often come on at night and wake the patient from sleep. Schultze¹ in 1893 used the term "Akroparästhesie" to describe these symptoms. Acroparesthesia may effect people of either sex and at any age but most characteristically occurs in middle aged females, often those with sagging shoulder muscles and often those who have had to undertake unaccustomed manual work. The widow who takes to washing is perhaps the most likely person to develop these symptoms.

In discussing acroparesthesia, Ford² in 1956 stated that "the fact that there is never any evidence of nerve root damage, even after symptoms have been present for many years, seems to be very strong evidence against the possibility that the symptoms are neurogenic." Ford's patients were mostly "housewives who lost their maids during the war and were forced to wash, sweep, cook and perform other household duties all day long." He suggested that the symptoms arose from the accumulation of metabolites in fatigued muscles.

Contrary to these views most authorities believe that acroparesthesia occurs when some component of the brachial plexus is compressed or distorted somewhere along its length from its emergence as a nerve root from the spinal cord to its termination in the hand.

Over the last fifty years a number of such mechanisms has been suggested and for each supposed cause an operation has been devised. Much confusion has arisen from the conflicting

claims that each particular theory explains all cases of acroparesthesia.

ANATOMY

Immediately after emerging from the spinal canal each spinal nerve root gives off a posterior ramus to the paraspinal region. The posterior rami of the five roots (C5 to T1) that comprise the brachial plexus pass back to the region of the scapula. When nerve damage occurs anywhere in the arm, referred pain is likely to be felt in the scapular region. Consequently the brachial neuropathies tend to look alike as they may all be associated with scapular pain. For example, the patient shown in Figure 1 presented with shoulder pain at the site marked with a felt pen. The cause of the pain, however, appeared to lie not in the region of the shoulder but at the elbow. Figure 2 shows the same patient demonstrating atrophy and



Fig. 1



Fig. 2

weakness of the interossei muscles. Examination of this case revealed a severe ulnar nerve palsy with the site of the ulnar nerve damage being at the level of the elbow.

NERVE ROOT COMPRESSION

A common cause of cervical root compression is a prolapse of an intervertebral disc. Symptoms and signs are produced in the distribution of a single nerve root unless more than one intervertebral disc is damaged. For example, in the case of a C7 root, atrophy or weakness of the triceps muscle and depression of the triceps reflex are likely to be present, while in the case of a C6 root, we expect to find atrophy or weakness of the biceps muscle and depression of the biceps reflex. The C7 root produces numbness and sensory loss of the middle finger while the C6 lesion may produce paresthesias or loss of sensation of the thumb and index finger. Without such objective findings it is difficult to make a diagnosis of a root lesion. Myelography is of help in confirming a clinical suspicion but as McRae³ has pointed out, "since more than fifty per cent of all patients over the age of forty have cervical spondylitis, its presence must not blind us to other lesions."

Some surgeons have used vague criteria for making the diagnosis. In 1946 Scoville⁴ stated "compression of the nerve roots at the lower cervical vertebral foramina accounts for most of the diagnoses of scalenus anticus syndrome, brachial neuralgia and other obscure neuralgic pains of the shoulder arm." Scoville⁵ advocated a surgical approach to the offending intervertebral disc and by 1958 boasted a series of 400 operated cases. One wonders how many of these operations were carried out for "obscure neuralgic pains of the shoulder and arm."

CERVICAL RIB

Pain and paresthesia in the hand and forearm were attributed to cervical ribs by Kinnier Wilson⁶ in 1913. Often there is muscle atrophy, weakness and changes in the reflexes and the symptoms are usually more diffuse and variable than in the case of a disc lesion since more than one root may be distorted by the abnormal rib. Vascular structures also may be involved.

SCALENUS MUSCLE SYNDROME

In 1927, Adson and Coffey⁷ described an operation for section of the scalenus anticus

muscle for relieving symptoms of cervical ribs. They demonstrated that the brachial plexus was crushed against the abnormal rib by this muscle and they pointed out that section of the muscle was a simpler procedure than that of resecting the rib.

In 1938, Naffziger and Grant⁸ described the "cervical rib syndrome" without a cervical rib. Thus arose the concept of the scalenus syndrome in which the brachial plexus was thought to be crushed between the scalenus anterior muscle and the normal first rib.⁹

COSTOCLAVICULAR SYNDROME

Costoclavicular syndrome or thoracic outlet syndrome is the name given to symptoms thought to be caused when the brachial plexus is squeezed between the clavicle and the first rib. Very often the symptoms are relieved when the patient adopts Reichert's¹⁰ regime in which the neck is flexed and the shoulders supported by pillows during sleep. With the patient supine in this posture the space between the clavicle and the first rib is thought to be maximal. Recently Kranz, Crystal, Wagner and Day¹¹ have reaffirmed the importance of the first rib and advocated its resection with the assertion that "what has been called the scalenus anticus syndrome should now be called the thoracic outlet compression syndrome." The importance of the first rib was stressed earlier by Walshe¹² who stated that "The common and well-defined syndrome that goes by the name of acroparaesthesia and is recognized as peculiar to women patients engaged in manual work, when they are debilitated or fatigued, and usually when they are in middle age, is considered as a manifestation of a rib-pressure syndrome. The rib in question is the normal first rib, and traction and compression are exerted on the lower components of the brachial plexus, sometimes also upon the subclavian artery, when from muscular atonia the muscles supporting the shoulder girdles allow these to droop and sit at an abnormally low level." He considered these mechanical factors "as probably accounting for the great majority of cases of acroparaesthesia in women" and he concluded that "if there be other causes of this familiar syndrome their operation has not so far been demonstrated."

Equally dogmatic but different views have been held by other authors.

CARPAL TUNNEL SYNDROME

Kremer, Gilliatt, Golding and Wilson¹³ in 1953

stated that whether the acroparaesthesia syndrome "occurs spontaneously or is produced by some obvious cause, it is due to compression of the median nerve at the wrist in the carpal tunnel." The same point of view was expressed recently in an editorial in the *Lancet*¹⁴ which asserted "in patients in middle life (especially women) most upper-limb acroparaesthesiae result from compression of the median nerve in the carpal tunnel."

That the carpal tunnel syndrome is a valid and common entity few seriously doubt. The median nerve is thought to be distorted as it lies within the carpal tunnel through which pass not only the median nerve but all the flexor tendons of the thumb and fingers. The symptoms consist of pain and numbness, particularly in the thumb and adjacent two and a half fingers, and there may be sensory loss in this distribution together with some atrophy and weakness of the thenar muscles. When the flexor surface of the wrist is struck with a percussion hammer unpleasant tingling sensations radiate into the hand and fingers. The patient's symptoms are reproduced or aggravated by holding the wrist flexed for about a minute. Occasionally small calluses may be seen in the palm in the region of the heads of the metacarpal bones, as people who tend to grip firmly seem predisposed to carpal tunnel syndrome. The symptoms are often alleviated when the patient wears a splint to keep the wrist immobilized in slight dorsiflexion. This is often effective when the splint is worn only in bed at night. Severe cases, however, usually do not resolve completely without operative treatment. In the diagnosis of carpal tunnel syndrome study of nerve conduction shows prolongation of the latency of the action potential in the thenar muscles when the median nerve is stimulated above the wrist.

Crymble¹⁵ pointed out recently that in carpal tunnel syndrome "the patient may complain more of the pain in his neck and shoulder than of that in the forearm and hand." He went on to say "in brachial neuralgias from any cause there often is no correlation between the site of the lesion and the distribution of the pain." Other sites where such entrapment is thought to occur include the forearm (pronator syndrome) and the pectoral region (hyperabduction syndrome).

PSYCHIATRIC SYMPTOMS

Numbness and pain in the hands coming on in bed at night and waking us from sleep are extremely common and most people have experienced these at some time. A depressed or hypochondriacal patient may complain unduly of this symptom and present as a case of brachial neuropathy. In many cases the underlying depression or hypochondriasis is the principle component. Moreover the type of patient who most characteristically suffers from this syndrome, "the widow who takes to washing," is often drooping not only in the shoulder muscles but also in spirit!¹⁶ If a psychiatric diagnosis is appropriate this diagnosis should be made at the outset of management and should not be reserved for those cases who have failed to respond to an arbitrary operative procedure.

CONCLUSIONS

It is clear that lesions at several different points along the course of the nerves in the arm have been accused of causing the same condition of acroparesthesia. In many patients several factors may operate simultaneously at more than one level and it is possible that pathological changes at one level may influence the vulnerability at another. In many cases there are no convincing objective signs which enable us to implicate one level more than another. Such cases often respond to simple conservative treatment methods aimed at several levels successively or in combination. The Reichert pillow regime, splinting the wrist, exercises to strengthen the trapezius muscles, heat and massage to the shoulder muscles, carrying the arm in a sling and the use of antidepressant drugs all play a part in the conservative management of these cases.

The lesson that is learned from a review of this subject concerns the tendency of each purveyor of a therapeutic method to expand the category of cases treated by his method and to adopt a doctrinaire approach that precludes alternative diagnoses.

REFERENCES (see page 145)

MUKTUK MORSELS

NOME

Nothing much new here. A one year contract has been signed by Dr. Chung of Korea who trained in Pennsylvania and scheduled to arrive in late December. Meanwhile, Dr. McMahon of the USPHS continues to hold the medical fort, recently supplemented by Dr. Gould of Colorado as a temporary physician volunteer. The RMP is interested in Nome as a possible area for a cooperative Federal-Private venture in delivery of a better rural health care package. Mr. Dale Wynn, of Community Health Planning is also trying to organize a health planning committee for the Seward Peninsula. So was the OEO last year before the budget cut. The challenge remains, complete with politics.

FAIRBANKS

Dr. William Kinn has been appointed Northern ASMA Councillor by the Fairbanks Medical Society to replace Dr. William Bugh who has moved to Anchorage. Drs. Bugh and Bartko will both be replaced by new appointments to the Medical Licensing Board by Governor Miller as they are no longer in the region they were appointed from.

The new Fairbanks Community Hospital appears to be proceeding through its planning stages at a snail's pace.

KODIAK

Dr. Carl Denny, currently in the USPHS, Anchorage, plans to enter a mixed private medical practice here in January. Dr. Denny is Board Qualified in Anesthesiology and will fulfill a great need at the New Kodiak General Hospital.

KENAI PENINSULA

Dr. Paul Isaak of Soldotna reports that arrangements for the June 3-6 annual ASMA meeting are proceeding apace. The interesting scientific program and business meetings will be scheduled to avoid too much interference with the fishing, which is alleged merely "superb".

Drs. Isaak and Gaede are currently scheduling more student preceptees through 1971. Medical schools currently affiliated with the Peninsula

Medical Clinic include the University of Colorado, State University of Iowa, University of Nebraska, Tulane, Washington University in St. Louis, and San Francisco. Current plans for completion of the Peninsula General Hospital will go out for bid in February 1970 with a proposed completion in the latter part of 1970.

Physicians on the Kenai Peninsula are among those Alaskan physicians in private practice currently extending charity to the U. S. Government during its apparent insolvency. Due to budget cuts, the USPHS contract care physicians are not getting paid for the care provided many of their Native patients, which was contracted for by the USPHS. These physicians point out that while they do extend free care to needy individuals in their own practice, they feel that Uncle Sam does not yet qualify as needy by these standards. They also point out that, at the very least, if they are to provide such free care, the USPHS should publicize this, rather than continue to take credit for paying for care it can no longer afford. An interesting subject, currently a sore one among those doctors afflicted, especially as their own overhead refuses to be disallowed in similar fashion.

PALMER

Dr. James F. Ivey of Florida has opened his private office here in General Practice.

ANCHORAGE

Dr. C. William Bugh has opened his general practice office at the College Medical Center here after 10 years of solo medical practice in Fairbanks.

Drs. James Fraser and George Seuffert were very pleased with the student anesthesiology preceptorship program they sponsored this summer.

Dr. Joseph Wilson, USPHS Chief of Surgery, recently was awarded the USPHS Meritorious Service Medal for his contributions to the control of tuberculosis, bronchiectasis and echinococcus disease in Alaskan villages, including approximately 800 resections for tuberculosis.

CORDOVA

Dr. Gayle Sacry reports that his student preceptee from Iowa for the past two months worked out well for both he and the student. He expects another student in a few months from the University of Colorado.

SITKA

Dr. Dale Cloyd is leaving Petersburg to open a private office in general practice in Sitka, replacing Dr. Ted Philips, now teaching family practice at Rochester Medical School in New York.

Dr. Milo Fritz of Anchorage and Dr. David J. McIntyre of the Bellevue Eye Clinic, Bellevue, Washington, will be holding simultaneous clinics here during December.

KETCHIKAN

Dr. James Wilson had his third daughter recently.

WRANGELL

Dr. David Dale has closed his general practice here and has moved Outside. Several temporary physician replacements have been arranged through RMP but at present Wrangell needs a physician.

MILWAUKEE

The 23rd AMA - sponsored National Conference on Rural Health will be held here April 9-10, 1970.

PAIN IN THE UPPER EXTREMITIES (*continued from page 143*)

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BOOK REVIEWS

ON DEATH AND DYING

By Elisabeth Kubler-Ross
The Macmillan Co.-1969
\$6.95

On Death and Dying is an emotional and nostalgic book. It would be difficult to imagine a book concerned with death to be anything but emotional. The nostalgia seems to be personal, reflecting a preference by the author to return to another time and another place, to a more direct and honest folk-society in which familiarity and empathy were more common features of life, and in which death was more of a natural event. Instead of this more direct society the author finds us living in the world of modern medicine, amidst mushrooming technology and automation, impersonal, sterile hospitals and often almost mechanized hospital personnel. The author notes quite early in the book that medical technology has an aversion to death as a natural human process, and it is to the technologists of modern medicine that this work is directed.

The book was generated from the experience of an interdisciplinary seminar on death and dying conducted at the University of Chicago Hospitals. The aim of the seminar was to break down the communication barrier between hospital personnel (physicians, nurses, students, clergy) and their terminally ill patients and the patients' families. The seminar was based on open and frank interviews with terminally ill patients, followed by discussions of this interview material. The book contains many excerpts of actual interviews. The point is firmly made that terminally ill patients want to talk about themselves, their problems and their illnesses, and that in an open atmosphere much can be done to help ease some of the patients' burdens. By repeated observation she sees the process of dying as composed of several stages. These stages are a denial of illness; anger at the fact that the illness exists; bargaining for time and position; depression; and final acceptance. These stages were seen in many patients in the study and much can be done to help the patient through each of their stages. It is quite interesting to note that these stages closely parallel the stages of bereavement which have been described by Erich Lindermann and John Bowlby. This no doubt reflects common human coping mechanisms when faced with the stark and harsh reality of death, whether it be one's own, or that of a close object.

The author devotes some thought to the patient's family and their responses to the approaching death. She demonstrates again through interview material, that staff can work with the patient's family while the patient is alive, and that a new sense of understanding, and in many cases, forgiveness, can be achieved between dying patient and his family. This is a fascinating area for clinical psychiatry and for preventive psychiatry. So much of clinical psychiatric work has to do with distorted grief reactions that the idea of preventive intervention in this area is extremely promising. If patients and relatives can be helped during the normal crisis of death, as it is taking place, then how much future psychopathological symptomatology can be avoided?

In summary, On Death and Dying, is an extremely worthwhile book dealing with a rarely treated subject, a subject which should be part of the education of every person dealing with the ill, the dying and the bereaved.

Joseph D. Bloom, M.D.

MEDICAL PHARMACOLOGY; PRINCIPLES AND CONCEPTS

Fourth Edition by Andres Goth, M.D.
Publisher C. V. Mosby, St. Louis
Price \$13.50

DRUGS OF CHOICE 1969

Walter Wydal Editor
Published by C. V. Mosby, St. Louis 168 pp.
Price \$17.75

A hallmark of modern therapeutics is the wide spread use of drugs. Sir William Osler had to 'make do' with hardly more than morphine and digitalis, but his successors now can use a long and growing list of specifics based on research in physiology, bacteriology, and pharmacology. Another less fortunate characteristic of modern drug therapy is that the "information explosion" has not kept pace with the 'drug explosion'. Perhaps the most widely used source of information about drugs is neither a text nor journal, but rather the ubiquitous Physicians Desk Reference, which is merely a compilation of manufacturers' information, its bias checked only by F.D.A. regulations.

One way to stay informed about modern pharmacology would be to use Medical Pharmacology by Andres Goth, M.D., professor of pharmacology at the University of Texas Southwestern Medical School, Dallas. This is not a detailed reference manual (such as Goodman and Gilman's Textbook of Pharmacology) but rather it is a concise, lucid, unbiased summary of medically relevant pharmacological information. It is a beautiful example of a single author text, is written in a crystal clear style, and strikes a happy balance between the critical acceptance of newer drugs and the evaluation of older ones. A clinician will still want to have the drug manufacturers' information from the PDR, as well as availability of detailed reference texts, but Medical Pharmacology could well serve as the book at arm's length which one relies on daily.

Drugs of Choice 1968-69 is a multiple-authored book which is more detailed and approaches the status of a reference text. It is also more variable, more diffuse, less well organized, and considerably more difficult to use than Professor Goth's book. The editor allows duplication, lets the ball get dropped between authors, and lets some of the authors wander into the adjacent field of medical therapy so that some chapters degenerate into pale shadows of a textbook of medicine. If one were forced to have a single textbook of pharmacology, this book would be adequate. My preference would be for a combination of "Goodman and Gilman" and Professor Goth's book.

F. J. Hillman, M.D.

CURRENT THERAPY 1969

Editor: Howard R. Conn, M.D.
Published: 1969 by W.B. Saunders Company

This 1969 edition marks the beginning of the third decade of the publication of CURRENT THERAPY, and contains material that is approximately 80 per cent rewritten from the text of 1968. It is composed of over 300 articles in approximately 900 pages, covering 12 major areas of medical treatment. These divisions have been edited by medical school professors who are well recognized in their respective fields of cardiovascular disease, obstetrics, gynecology, allergy, metabolism and nutrition, diseases of the urogenital tract, dermatology, infectious diseases, nervous and mental diseases, gastroenterology, diseases of the respiratory system, hematology, and endocrinology. Among 350 MD's contributing articles, only one is an Alaskan. Dr. William Mills Jr. wrote the article on treatment of cold injury.

Written by physicians prominent in their respective fields, these articles represent a distillation of a vast amount of current therapeutic information. In the book are found normal laboratory values of clinical importance, and nearly every conceivable test is listed there. Throughout the text are a number of important charts on drug dosage and characteristics and there is a valuable section on common poisonous agents, and the accepted treatment for these.

Outstanding articles on infectious disease include one on septicemia which lists several pages of antibiotics for specific infecting organisms in various areas of the body, with recommended dosage levels and one on rabies which includes a guide for treatment of exposure to rabies from the World Health Organization. The latter subject has been of some interest in Alaska lately and should help clarify the medical thinking on the subject. The section on the respiratory system includes a fine article on the treatment of tuberculosis by an English physician, with detailed charts of characteristics of the chemotherapeutic agents for this disease.

Under the cardiovascular system, some of the more outstanding articles are those about drugs used in congestive heart failure, treatment of cardiac arrhythmias and cardiac arrest. A considerable amount of new information in this area of cardiology has come forth in the last few years, which is well summarized in these articles. An article on the treatment of hypertension is also an outstanding one, emphasizing the diagnostic workup for the various types of hypertension and currently accepted drug management of this disease. Throughout the articles the emphasis is on accurate diagnosis whenever possible, in order to give enlightened and proper treatment in therapy.

The treatment of the various types of leukemia in adults and childhood as well as the chemotherapeutic and radiation treatment of Hodgkins disease are excellently covered in the section on hematology. The article on transfusion reactions and shock is well done and is worthwhile reading for anyone who has occasion to use blood transfusions for his patients.

In the section on metabolic disorders, an article by Dr. Krall on diabetes mellitus in adults is outstanding. Parenteral fluid therapy in adults and in children is done with many helpful charts. Treatment of bronchial asthma is well covered under the allergic diseases.

Nearly 100 pages are devoted to treatment of diseases of the skin and many exotic prescriptions for various disorders are listed. The nervous system takes up approximately 100 pages and the majority of the articles are excellent, including those dealing with the surgical treatment of nervous system disease. Some of the interesting articles are the treatment of the episodic vertigos, rehabilitation of the patient with hemiplegia, and the management of psychoneurosis and depression. The management of rheumatoid arthritis takes up most of the space under locomotor diseases. Management of conditions in obstetrics and gynecology takes up nearly 100 pages. An article on obstetric anesthesia and analgesic, by three anesthesiologists, is one of the best in that section.

The last section of the book deals with physical and chemical injuries and includes a list of present poison control centers in the U.S. and Canada.

The book is a valuable reference for the general

practitioner of medicine and the specialist, because of its current information and concise, well organized essays.

Warren R. Jones, M.D.

Clinical Judgement

By Alvan R. Feinstein

Williams and Wilkins Company, Baltimore, 1967, 400 pp.

The Desert Year

By Joseph Wood Krutch

The Viking Press, New York, 165 pp. (paper-back)

Now and then one is lucky enough to run across a book that "rings true", which crystallizes into lucid prose one's own muddy amorphous musings. Joseph Wood Krutch's *The Desert Year* is an old book (but new to me) in which the naturalist and philosopher discusses life in the context of the Lower Sonoran Desert. Mr Krutch touches on such matters as awareness, observation and discovery, the nature of ownership and beauty, the relation of man to a wilderness, and the adaptation of species to a difficult environment. It is a quiet, warm discourse that tells us much about the desert, about Mr. Krutch, and about ourselves. A similar book could be, and should be, written about the Arctic, but so far I know of none.

Clinical Judgement by Dr. Alvan R. Feinstein, Professor of Medicine at Yale, is another such book-find. Professor Feinstein is also concerned about awareness, observation and discovery — in short, clinical investigation. He discourses not on any specific disease, but rather on how to observe and to think about sick patients. He would like to refine clinical taxonomy (diagnostic labeling) into a useful investigative tool, and he introduces the simple concepts of Boolean algebra (symbolic logic) and Venn diagrams (overlapping circles) as the keen cutting edge of such a tool. It happens that Boolean algebra and Venn diagrams have the unique ability to identify overlapping collections of objects, and thus they are convenient to identify and visualize the co-existence of many different clinical properties in patients, and are ideally adapted to handling intricate data by computers. Dr. Feinstein's concepts have already proved useful in the staging of cancers of the lung and the rectum as related to prognosis and in the classifying of patients with acute rheumatic fever regarding prognosis.

To Alaskans, who have no medical school, no easy access to laboratories nor to grants in laboratory research, but who nevertheless are sitting on an unstaked gold mine of pathology, the field of clinical investigation is open and waiting. To those physicians who need an outlet for an investigative bent of mind, this book is recommended as a stimulus and guide. For those who will never write a paper, but merely wish to think about their patients scientifically, *Clinical Judgement* has many wise things to say about the practice of medicine.

F. J. Hillman, M.D.

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"Across the Inlet"

22 by 28 oil painting on masonite
by Fred Machetanz

This painting depicts Mt. Susitna or Sleeping Lady on a morning in Fall. Snow has already fallen on the higher slopes. Foliage has turned to the golden hues in varying degrees, especially on the upper slopes. Mixed with the gold are some of the reddish hues such as high bush cranberries and others. In the foreground on this side of the inlet are the birches which I visualize as being close enough for the leaves to produce a decorative pattern against the tops of other birches a bit farther on. Against all this golden color can be seen blues and violets of the shadows, both in the nearby leaves and those of Susitna.

The dawn colors of morning have accentuated all this color with a tone of pink, noted on the snow. A more subtle pink is shown in the clouds. All of these colors are more subtle than a sunset seen in the same setting since the sun's morning rays are reflected on the objects, instead of through them directly as would be the case in a western sunset.

The inlet itself is reflecting the sky in its deeper blue, all of which makes a foil for the golden pinks and violets of the Fall foliage.

Loaned by
Mr. and Mrs. Robert Atwood

CLASSIFIED AD SECTION

WANTED: Doctor to administer OEO Healthright grant in Bethel, Alaska. Duties would include program development for ambulatory care center, work with Alaska Native Health Aide Training Program, innovation in health delivery system and some clinical work. Salary \$20,000-\$30,000 per year depending upon qualifications and experience. Further information may be obtained by writing: Alaska Federation of Natives, 1689 C Street, Anchorage, Alaska 99501.

GENERAL PRACTITIONER WANTED—ASSOCIATE POSITION: This opening includes plans for a possible future partnership. New office with all facilities available. Contact Royce H. Morgan, M.D., 1844 W. Northern Lights Blvd., Anchorage, Alaska 99503.

INTERNIST: The Tanana Valley Medical Clinic has an opening for an internist. Would like young man under 40 with military obligations fulfilled. If interested, please contact Mr. Al Seliger, Business Manager, 1007 Noble Street, Fairbanks, Alaska.

HOSPITAL ADMINISTRATOR for 6 bed General Hospital. Send resume of administrative training and background to: Hospital Board President, Homer Hospital, Box 683, Homer, Alaska 99603.

DOCTOR NEEDED. General physician to work in newly constructed \$100,000 Health Center serving town of 670 population. Good year round payroll. For further information write City Clerk, City of Skagway, P.O. Box 415, Skagway, Alaska.

PUBLIC HEALTH DIRECTOR for the Greater Anchorage Area Borough located in Anchorage, Alaska. Requires at least five years experience in Public Health and an Alaska state medical license. Salary range, \$19,500 to \$24,800. Write to J.W. Kirk, Personnel Officer, 104 Northern Lights Blvd., Anchorage, Alaska 99503.

SOLO IN ANCHORAGE — Immediate opening for a physician interested in a solo practice in Anchorage, Alaska. Good downtown location, reasonable rent, offices and equipment all set up. See at the Medical-Dental Building, 140 East 5th Avenue, or telephone H.A. Nahorney, DMD, MSD at 272-7033.

ASSOCIATE GP or GP-ANESTHETIST needed at Kodiak. Rental, separate practice, division of expenses in new clinic. New 25-bed hospital, opening in one month. Contact Bob Johnson MD., Box 766, Kodiak, Alaska 99615.

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About The Cover Painting

By Fred Machetanz

"High Ridge" Palmer, Alaska

"Miowak" - 16 x 18 oil painting on masonite.

"Miowak" was my foster mother, so to speak, in the Eskimo village of Unalakleet. She had a son whose father was white and grew up to be rather tall and somewhat thin like myself and about the same age. He died the year before I came to Unalakleet in 1935. When I got out of the bush plane she was in the crowd that met us on the tundra landing strip outside the village. She almost fainted, thinking I was her son since we were evidently similar in build, age and general appearance. She posed for several paintings of mine in the trading post where she would sit and I would do charcoal drawings of her. This was in the Spring of 1936 when I did this portrait of her, giving her the charcoal drawing from which I did this painting. She was the daughter of the last chief at Unalakleet, Chief Nashalook. Her present husband was Miles Gonangan who drove

one of the teams which carried the serum to Nome in 1925, going from Unalakleet to Shaktolik.

The painting was done in my present technique of painting the main subject with an underpainting of, in this case, green and white. To this was added many layers or glazes of transparent color much like the technique of Titian, Rembrandt, and Vermeer.

(Signed) Fred Machetanz

This painting is being purchased by friends of the late Dr. Levi Browning, and will be presented to the Anchorage Fine Arts Museum as a memorial to the late doctor. Information concerning the memorial may be obtained from Herb Hilscher, Jack Anderson, or Fred Machetanz.

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LETTERS TO THE EDITOR

Dear Sir,

In line with your recent articles on abortion I would like to call your readers' attention to a monograph published recently by the Group for the Advancement of Psychiatry, called "The Right to Abortion, A Psychiatric View."

The Group for the Advancement of Psychiatry is a well respected body which has for years taken positions on important questions in American life. This fact is borne out in the monograph I am recommending.

The following summary appears in the report

"Many of the social, sexual, and pragmatic goals served by legal sanctions against abortion have diminished in the past decades. Their continued application no longer can be sustained by a justifiable state interest. If anything, it may be in the interest of the state to permit abortion freely as a secondary measure to limit population where contraception fails. The laws as currently enforced impose an enormous hardship on the unwilling mother, whatever her medical or psychiatric condition may be. There remains the moral issue of abortion as murder. We submit that this is insoluble, a matter of religious philosophy and religious principle and not a matter of fact. We suggest that those who believe abortion is murder need not avail themselves of it. On the other hand, we do not believe that such conviction should limit the freedom of those not bound by identical religious conviction. Although the moral issue hangs like a threatening cloud over any open discussion of abortion, the moral issues are not all one-sided. The psychoanalyst Erik Erikson stated the other side well when he suggested that "The most deadly of all possible sins is the mutilation of a child's spirit." There can be nothing more destructive to a child's spirit than being unwanted, and there are few things more disruptive to a woman's spirit than being forced without love or need into motherhood.

It is on the basis of the foregoing discussion that we recommend that abortion, when performed by a licensed physician, be entirely removed from the domain of criminal law. We believe that a woman should have the right to abort or not, just as she has the right to marry or not.

We suggest that the physician who is asked to perform the abortion be expected to exercise medical judgment as he would in the case of any elective surgery.* Medical judgment will be affected by many factors. Perhaps the most controversial of these will be the length of gestation and the viability of the fetus. However, we believe that general rather than specific guidelines should be instituted. Thus, we assume that most physicians, as gestation progresses, will be increasingly reluctant to perform abortion.

As psychiatrists we would particularly emphasize the importance of the physician's exploring with the pregnant woman the basis of her motivation, so as to clarify impulsive, manipulative, or self-destructive elements in the decision to abort. The various medical judgments pertinent to abortion may, when warranted, be arrived at with the help of consultation. We do not believe that psychiatric consultation should necessarily be routine.

We are well aware that our recommendations constitute a broad change of social policy. Given the experiences in Hungary, Sweden, and Japan, we recommend that the Bureau of Census, the various population centers, and the various social and psychological research centers attend to and study the consequences of this change and, where indicated, recommend future policy changes. What we suggest is not necessarily a final step, but rather a current appropriate measure."

* The physician should have the right to refuse to perform abortion on the basis of his own moral or religious convictions. It is also essential that the operating surgeon be protected against any legal claim of the father.

Sincerely,

Joseph D. Bloom, M.D.
Anchorage

Dear Sir:

I wish to comment on the article, "Alaskan Rural Health Service Proposed," which appeared in the December 1969 issue of Alaska Medicine. My comment is directed to one sentence in the article which reads, "It is suggested, therefore, that the Alaska Native Health Service become the Alaska Rural Health Service, with a mission of providing medical and dental care to all residents, regardless of race, in bush areas where private facilities are inadequate."

The Alaska Native Health Service has rendered emergency care to all people in the remote areas since the Public Health Service took over the Alaska Native Health Program in 1955.

Since 1966 the Alaska Native Health Service has been authorized to extend non-emergency care to all residents regardless of race in remote areas in Alaska where private facilities are inadequate. This was authorized by the Alaska Statutes, Section 08.36.271 and Section 08.64.368, plus 48 U.S.C. 49. Medical services have been and are being rendered in these remote areas to all people by PHS physicians. Due to limited resources relative to the dental program, adult dental services (even to adult Natives) are limited to emergency services.

I am sure that Dr. Wilson is aware of the above and have written this letter for point of clarification. In reading the "Alaskan Rural Health Service Proposed" article, a non-informed reader could well interpret the sentence cited as implying that the Public Health Service excludes all medical service at this time to non-Natives in the remote areas.

Sincerely yours,

John F. Lee, M.D.
Medical Director
Director, Alaska Area
Native Health Service

Addendum:

The first meeting of the Alaska Area Native Board of Health was held recently in Anchorage at the Alaska Area Native Health Service Office. The Board consisted of Native representatives designated by Native associations throughout Alaska and Mr. Lloyd Sutton from the Alaska Federation of Natives. The Board met with Dr. John F. Lee, Area Director, Alaska Area Native Health Service and his staff.

Mr. Lloyd Sutton was elected chairman of the Board and Mr. Elmer Armstrong was elected vice-Chairman. Other board members attending were: Idell Aiken, Barrow Board of Health, Arctic Slope Native Association; Robert Nick, Bethel Board of Health; Kuskokwim Valley Native Association was represented by Miss Marilyn Thaden of the Yukon Kuskokwim Health Corporation; Gust Knutsen, Kana-kanak Board of Health, Bristol Bay Native Association; Paul Young, Anchorage Board of Health, Alaska Native Brotherhood, No. 33; Meda Lord, Tanana Board of Health, Tanana Valley Chiefs; and Richard Hotch, Southeast Alaska Native Board of Health, Klukwan Alaska Native Brotherhood. The Area Staff members included: John F. Lee, M.D., Area Director; T. H. Wirak, Executive Officer; Gerald H. Ivey, Office of Native Affairs, and Robert Hill, M.D., Service Unit Director, Bethel, Alaska.

It is the stated policy of the Indian Health Service "to encourage and increase Alaska Native participation in every phase of the program -- in planning, operating and evaluating services at all levels". As an example of this policy the Area Board of Health was formed with the objectives of:

1. Enhancing the effectiveness of the Health program through meaningful participation of the Native people in the health programs and their expediting improvement in their health status;
2. Increasing the concern of the Native people for an effective health program to meet their needs, and
3. promoting the development of a partnership with the Native people for self-help for health services and activities.

The first two days of the three day meeting were largely organizational in nature with the Board electing officers, developing a Charter, and background briefings by the various components and branches of the health program. During the third day of the meeting, the Board reviewed, evaluated and made recommendations concerning parts of the "program plan" for the next fiscal year.

The Board members were enthusiastic and provided invaluable knowledge, insight and a real understanding of the health needs which exist throughout the different parts of Alaska. The next meeting of the Board is planned for May at which time they will review the Area Program Plan and recommend adjustments before the plan becomes operational in July.

In addition to the Area Board which represents all of the seven Service Units of Alaska, there has been formed a Native Board of Health in each of the Service Units. These Service Unit Boards were formed for similar purposes as the Area Board to meet with the Service Unit Director and his staff. It is believed that by establishing these Boards a better understanding and more knowledge in the area of health care will be developed. Ideally, this process will in time continue to the village level through the establishment of health committees and an increased knowledge and concern will be developed towards elevating and maintaining good health through appropriate preventive and rehabilitative practices.

Sounds like Progress! Ed.

Dear Sir,

It was my pleasure, as President of the Ketchikan Medical Association to attend a conference in Colorado from September 29 through October 3rd entitled "The Hospital Medical Staff Conference". This meeting was widely attended, with registrants from 44 states, 240 hospitals, Canada, Puerto Rico, and the District of Columbia. Speakers from medical, legal, hospital administration and nursing and education fields provided a thorough look at the functioning of the present day hospital. Evaluation of costs, their basis and methods of cost management; liability of hospitals, attending physicians and medical staffs; functioning of hospital committees, utilization committees, infection committees; statistical review; continuing education, house staff problems, emergency care; and participation in federal programs were some of the subjects reviewed and discussed. One speaker, Richard C. Bates, M.D. of Cincinnati, contributed papers on self health groups in hospitals and held a well attended discussion on drug abuse by young people.

I think that this meeting was excellent and should be attended by all who serve on hospital executive committees. I would urge other physicians to attend similar meetings to increase their understanding of hospital staff responsibilities, the responsibilities of the hospital, and future developments in integration of services toward effective and economical patient care.

The Conference Center is located in a very beautiful mountain setting at the Estes Park Y.M.C.A. camp. I am sure that even Alaskans will have to admit that this is indeed a beautiful place to find a stimulating educational experience.

Sincerely,

Arthur N. Wilson, Jr., M.D.

Dear Sir,

I enclose some information received from Mr. Archibald Guineau, Director of Health of The Cook Islands, in May 1967, which has pertinence to current bush medical problems in Alaska.

"In the Health Department here, we have three levels of medical attendant according to training. These are:

Fully qualified practitioners with University training.

Practitioners qualified in the Medical School in Fiji (formerly called Assistant or Native Medical Practitioners)

Unqualified Medical dressers.

As I am not certain whether your inquiry would refer to Fiji qualified personnel or unqualified medical dressers it is probably best that both are described.

Fiji qualified medical practitioners provide the major part of the medical services in the islands. They have a five year training course covering all aspects of medicine, surgery and obstetrics with greater emphasis on practical and emergency procedures rather than theoretical considerations. The basic medical subjects are fully covered and diplomas in medicine and surgery granted on completion of study. Practitioners with this qualification are competent and capable of dealing with medical practice in isolated areas with minimum supervision. They can progress to specialist status and we have one surgeon, one physician anesthesiologist, and one public health physician with this qualification but they are only permitted to practice within the territory.

Further details on curriculum could be obtained from Dr. Gilchrist, Principal, Fiji Medical School, Fiji.

Duties of Fiji trained medical officers cover the full range of medical practice, including major surgery (in emergency) on all outer islands with populations over 700. Supervision is maintained by periodic visits of senior staff and by consultation by radio telephone. After a period of 2 to 3 years on outer islands they are returned to base hospital Rarotonga for refresher courses of 6 months.

As all medical personnel are employees of the Cook Islands Government, no licensing procedure is required. Salaries paid to these officers range from £750 to £1,300 (US\$ 2,250 to US\$ 3,900) per year according to seniority and responsibility.

Training of medical dressers is very much simpler and more basic. These officers are given basic training in practical public health for one year and are then designated as Mosquito Control Inspectors (although duties involve all aspects of public health). Following experience in the field in this capacity for some years, selected inspectors showing good intelligence, interest and initiative are provided with a one year course to become medical dressers. Training during this year comprises instruction in basic medical and surgical procedures with emphasis on commonly occurring conditions and on the recognition of danger signals. In surgery, they are taught sterile practice, suturing, evacuation of abscess and treatment of simple fractures.

Medical subjects covered are inflammation, treatment and diagnosis of infections (especially respiratory) treatment and diagnosis of allergic conditions and diabetes mellitus. Midwifery is covered fully. Rudimentary instruction is given in immunisation techniques and dental extractions. This training is provided in Rarotonga hospital by bedside rather than lecture.

The dressers have responsibility for the medical care of the smaller atolls. Most of these are within 40 miles of larger atolls with doctor and hospital. All have two way radio either with the near island or with Rarotonga. Again, supervision is by visit of senior staff and by radio. On the whole, most perform their duties well and consult regularly by radio on problems beyond their capability. They perform invaluable services to very remote communities which, while not ideal, would not be available otherwise as it would be quite impossible to provide qualified medical staff.

Again, the dressers are employees of the Government and no licensing procedure necessary. Salaries paid range from £400 to £825 (US\$1,200 to US\$2,475) per year according to educational standards and experience."

I believe this material to be of interest to those concerned with bush medicine.

Sincerely yours,

Milo H. Fritz, M.D.

Dear Doctor's Wife,

Hardly seems possible that another annual meeting is right around the corner! But it is and so here's a bit of info about it!

The dates are June 3, 4, and 5th in the Kenai-Soldotna area.

If you've never visited the Kenai peninsula, I encourage you to come along with your husband and see this rapidly growing part of our beautiful state. — If you haven't visited the area for a couple of years, you have a BIG surprise in store for you — The changes are astounding.

The gals from the Kenai-Soldotna-Seward-Homer area have many ideas for "HAVING FUN" and learning. The convention

Continued on Page 6

VINCENT H. S. HUME, M. D.

1923-1969

Dr. Hume attended Baylor University College of Medicine, graduating in 1949. He interned at Tripler Army Hospital, Hawaii, and had a three year residency at Madigan Army Hospital in Fort Worth, Texas. Dr. Hume practiced general surgery and general practice in Palmer for ten years until his retirement for ill health about a year prior to his death. He died in Corvallis, Oregon, on Christmas Day, leaving his wife and five surviving children.



Dr. Vincent H. S. Hume

CALVIN JOHNSON, M. D.

1924-1970



Dr. Calvin Johnson

Dr. Johnson was born in Salt Lake City. He attended the University of Louisville School of Medicine, graduating in 1947. His internship was at the Great Lakes Naval Hospital. Dr. Johnson opened his general practice office in Anchorage in 1960. He moved his main medical offices to Kenai over the past two years, although continuing a part-time practice in Anchorage. He leaves his wife and seven children. His two oldest sons are currently attending Brigham Young University.



ALASKA STATE MEDICAL ASSOCIATION



PRESIDENT'S PAGE

By Paul Isaak, M.D.

The case for the Alaska State Medical Association

During the past 10 or 12 years, the Alaska State Medical Association has experienced progressive growth and increased activity. The greatest impetus for increased activity has been the acquisition of a full time staff and a state office.

Although the ASMA has had appointed committees for many years, it has been only in the past 3 or 4 years that the committees have been very effective. Their effectiveness is in large measure due to a central office and its staff, wherein many committee activities are correlated.

Several members have in the past years questioned the justification of the cost of having a state office and paid staff. I daresay that there is not a single physician in Alaska that would agree to do all the work necessary in operating the State Medical Society without some monetary compensation. In order for our organization to be effective to any degree, and be of benefit to its members, someone has to spend a lot of time planning, corresponding and coordinating.

Now that we have the mechanism established for effective operation, just what are we doing to justify your membership dues each year? I would like to list a number of activities of (not necessarily in order of importance) which I feel would either not be going on or would be very minimally effective if it were not for some central coordinating effort:

1. **Placement of physicians:** the State Office receives numerous requests each year from physicians all over the United States asking about opportunities and needs in Alaska. These inquiries are all answered and copies are usually transmitted to those doctors or communities who have asked our Society to help them in obtaining a physician. Unfortunately, too many communities do not utilize this resource and try to make all their own contacts.

2. **Locum Tenens:** we get many requests from doctors in the South 48 who want to come to Alaska for variable periods of time to temporarily fill in where a need exists. Here too, our State Office solicits your inquiry if you are looking for a locum tenens.

3. **Assisting Doctors in Getting Professional**

Liability Coverage: a year ago 10 percent of our membership had no such coverage, either because of uninsurability or exorbitant cost of premiums. We have now been able to obtain reasonably adequate coverage for these physicians at a more modest cost.

4. **Relief From Constant Fear of Suit:** several of our Committees have been exploring various means to eliminate nuisance suits which are the major cause of the high malpractice premiums. Many other states are faced with this problem too, and I assure you the solution is not a simple one. We are, however, continuing in an attempt to find solutions to a most vexing problem.

5. **Fee For Service:** it apparently has never dawned on some Alaskan physicians that the fee scale they presently use has been a direct result of efforts by the ASMA. I know of no physician still using the old VA, DPW or ANS fee scale who feels he is adequately compensated. I bear no grudge against any agency for trying to buy their services at the lowest possible rate. However, we (at least most of us) could not possibly afford to provide the services at the same rate we did 6 or 7 years ago. Our House of Delegates spent a number of hours of discussion at successive meetings over several years before changes for our fee system were agreed upon.

6. **Legislative Efforts:** a number of very desirable bills were introduced and supported in the State Legislature in the past several years through the efforts of our Legislative Committee and other interested members. In the past two years a number of physicians have traveled to Juneau (at no expense to the State Association) to testify before various committees on health matters. All the legislators I have talked to feel that this is a very important contribution to their efforts and hope that we will continue this in future years. I grant that we do not necessarily represent every member's opinion, but we do attempt to get a majority view of our component societies before endorsing certain legislation. Budgetary limitations prevent us from informing every member of all committee activities and recommendations. We will make every effort to improve communications and provide more

complete information to all members in the future as our budget allows.

7. Meeting Rural Health Needs: presently, our Bush medicine and Public Health Committees are working with native groups, DPW, ADH and The Comprehensive Health Council in attempting to provide the best health coverage at the least cost and duplication of effort. There are many other activities of our State Medical Association worthy of mention, but it would require too much space to outline them here.

All of this activity is by no means completely satisfactory or adequate, but we have taken a big step in assuming some of the responsibilities the public and various agencies expect us to carry. Our maximum potential can only be reached by input

from, and cooperation of all who provide health care. Unless our profession accepts this challenge and provides proper direction in health activities now, rest assured someone less knowledgeable will do it for us.

In Alaska, as in no other state, we have an opportunity to exert our influence on many agencies and in the State Legislature for the benefit of Alaska residents. I hope that anyone who has constructive criticism or worthwhile suggestions will contact our office or any of its officers.

I personally feel that we can carry out our responsibilities effectively only in a collective and cooperative effort. Every physician practicing in Alaska should be part of this effort and make whatever contributions he can to promote effective health care.



More about letters to the Editor

co-chairmen are working hard on arranging a program that will be meaningful and thought provoking.

The members of the Woman's Auxiliary have been invited to attend any of the scientific sessions the M.D.'s are having, also the House of Delegates meetings held daily in the late afternoon.

A national representative from the Woman's Auxiliary to the AMA has been invited, however, I have not heard as yet who will be coming. More about this later.

Rev. Paul B. McCleave, LL.D. who serves on the AMA's committee on Medicine and Religion is to be a guest at the meeting. I

have had the privilege of hearing Rev. McCleave on my two visits to Chicago and he is a gentleman with much enthusiasm, love and HOPE for this troubled old world of ours and someone I know the M.D.'s wives would enjoy listening to.

SOOOO plan on coming with your husband to convention! If he has not been thinking in this direction maybe you can inspire him to . . .

(Camping is wonderful on the peninsula I'm told!!! Hope to see you then.

Mrs. J. Ray Langdon
President WA/ASMA 1969-70

A.S.M.A. LEGISLATIVE COMMITTEE RECOMMENDATIONS TO THE ALASKA STATE LEGISLATURE DECEMBER 1969

RURAL HEALTH CARE: The United States Public Health Service has cared for most rural residents because they are native or part native. Other bush residents have a difficult time in obtaining medical or dental care, although USPHS physicians and dentists are allowed to care for non-natives in emergency situations. Bills in Congress now (SB 2251 and HB 12709) would further allow private physicians to use USPHS facilities in remote areas for their patients so long as the needs of natives are met first.

The Alaska State Medical Association believes that non-natives in the bush deserve good care too, and submits that eligibility for medical care on a racial basis is not acceptable.

Planning for the health needs of rural Alaska is basically the task of the Comprehensive Health Planning Advisory Council and the Department of Health and Welfare after full consultation with the USPHS, the Alaska State Medical Association, the Alaska Dental Society, and others.

Every village and town needs a health station or clinic, staffed by persons appropriate to the size of the community.

The major resource for meeting the medical and dental needs of rural Alaska should be the USPHS, which should alter its mission to become the Alaska Rural Health Service with the task of providing adequate care to rural Alaskans irrespective of race. Payment for services by those able to pay personally or through insurance could be arranged. Private medical or dental facilities in small communities could also provide care either directly to patients or by contract with the USPHS.

The need for the USPHS in cities is lessening and may diminish even more rapidly if a generous settlement of native land claims is made. Where USPHS activity in cities continues to be required, their hospitals should be consolidated with private or municipal hospitals so that duplication of staffs and special equipment can be minimized.

In summary, the principal area of activity of private medical and dental care will continue to be in cities. The USPHS should care for people living in the bush. Planning for distribution and scope of all medical and dental activity in the state belongs to the Comprehensive Health Planning Advisory Council and the Department of Health and Welfare.

FINANCING CONSTRUCTION OF HOSPITALS AND ALLIED FACILITIES: A growing population needs and demands newer, larger, and more modern hospitals, nursing homes, alcohol and drug treatment centers, "half-way" houses, and homes for children who are chronically ill, retarded, behavior problems, or who are from broken homes. Hospitals are particularly crowded in Fairbanks, Anchorage, and Sitka now. The injuries and illnesses which will surely occur among workers and their families in the oil fields and on the pipeline will add to the crowding.

Hospitals have traditionally been built in Alaska by religious groups with outside financing, supplemented by local fund drives and federal and state Hill-Harris funds. Now hospitals are increasingly public rather than private institutions. For example, hospitals at Fairbanks, Kodiak, Juneau, and Ketchikan are municipal.

Because expense of construction is great and because we can no longer depend so fully on private and outside sources, new ways of financing the building of hospitals, nursing homes, home for children and the like must be developed.

These might include:

- (1) Emergency loans or grants by the State within the next two years to hospitals planning expansion to meet present critical needs for more hospital beds.

- (2) Encouraging loans by banks holding State monies to private municipal, or borough parties planning hospital or allied facility construction or expansion.

- (3) Loans of State money at favorable terms for hospital and allied facility construction through a State development corporation for non-profit institutions.

- (4) Increase in State participation in Hill-Harris programs. A past formula has been: owners 30%, state 30%, federal 40%.

MENTAL HEALTH, ALCOHOLISM AND DRUG ABUSE:
The Alaska State Medical Association favors:

1. Establishment of community mental health centers wherever a community has initiated plans for one. Revenue sharing should be considered for these centers.
2. Coordination of treatment of alcoholics and drug abusers with other health services wherever possible. The Office of Alcoholism should have authority and funds to cooperate with general hospitals for use as detoxification center, with community mental health centers, private physicians and psychiatrists for indicated physical and psychiatric care, and any other public or private agencies involved with alcoholic treatment and rehabilitation.
3. Support of the Office of Vocational Rehabilitation plan to establish centers, including group living and half-way houses, for the treatment of alcoholics.
4. Continued educational efforts on alcohol and drug abuse.

ABORTION: Criminal abortion is the largest cause of maternal death in the United States. Biologically there is no argument that D & C (dilation and curettage) destroys life, but there is disagreement philosophically whether abortion destroys a human being or merely human material which has the potential of becoming a person. Since society cannot agree philosophically about this, many feel that the moral decision, if any, should be left to a woman and her physician. Many feel moreover that the right to continue or end pregnancy is a matter of individual freedom for a woman.

Abortion laws in many states are being "modernized", but there is question now, in view of recent decisions in California and Washington, D.C., whether any abortion law is constitutional.

Our statute (below) was adopted from an Oregon statute in the 1880's, but the intent is not clear since it depends upon a definition of the word "child". In Oregon the word has been interpreted (1909) to mean fetus before or after "quickening" (movement at about the fourth month of pregnancy). In Georgia "child" means (1962) "so far developed as to be "quick". In Alaska an instruction interpreting "pregnant with child" was rendered in State vs Boswell, 61-109, Superior Court, 4th Judicial District (1961):

"Pregnant with child" as used in our law means an unborn child so far developed as to be quick, that is, so far developed as to be capable of independent moving or stirring in the mother's womb to a degree perceivable by the mother. The law does not require that the mother in fact identified the movement of stirring; quickening is attained when movement, however slight, could be made to said degree by the foetus independent of any other force.

Does this mean then that abortion before quickening is legal in Alaska? Is this the intent of AS 11.15.060?

In any event the Alaska State Medical Association is ill-at-ease with the obscurities and archaic language of the statute, as well as discontent with AS 08.64.380 (3A) (below) which includes "criminal abortion" as grounds for revocation of license to practice medicine. "criminal abortion" is not defined in Alaska statutes.

The Alaska State Medical Association at its annual meeting in Fairbanks in June 1969 favored, by a majority of 4 to 1, change in Alaska's law to declare that:

"The artificial interruption of pregnancy by a licensed physician is a matter of the practice of medicine and is not subject to criminal law."

We recommend either:

- (1) adding the above language to AS 11.15.060 and repealing AS 08.64.380 (3A)
- (2) or repealing both AS 11.15.060 and 08.64.380 (3A)

We seek not abortion on demand but the opportunity to decide with the patient, as in any other case, what solution is best in each situation.

.....
AS 11.15.060 - A person who administers to a woman pregnant with a child any medicine, drug or substance whatever, or who uses an instrument or other means, with intent to destroy the child, unless the action is necessary to preserve the life of the mother, is, if the death of the child or mother is thereby produced, guilty of manslaughter, and is punishable accordingly.

AS 08.64.380 (3A) - procuring or aiding or abetting in procuring a criminal abortion.

FULL PAY TO VOLUNTARY INSTITUTIONS FOR PURCHASE OF SERVICES BY DEPARTMENT OF HEALTH AND WELFARE AND FEDERAL AGENCIES:

The Alaska State Medical Association favors passage of HB 251 and SB 240, acts relating to the purchase of primary services by the Department of Health and Welfare from private voluntary institutions and agencies. It is difficult for many of these institutions and agencies to continue to operate when their services to state beneficiaries are not fully reimbursed.

IMMUNITY FROM CIVIL SUIT FOR CERTAIN ACTIVITIES OF PHYSICIANS AND DENTISTS:

Physicians and dentists are often called upon for services which are not a part of routine practice. These situations sometimes hold special risk of civil suit. Since the activity is generally more in the interest of the public than in his own interest (and usually is without remuneration) then it is reasonable to hold harmless a physician or dentist in the following activities (unless he is malicious or wilfully negligent):

1. Service on the State Medical Board or the State Dental Board.
2. Service on the committees of the Alaska State Medical Association or Alaska Dental Society or component societies, including medico-legal committees reviewing questions of alleged malpractice.
3. Service on boards of health.
4. Service as officers, chief of service, or on committees of hospital staffs.
5. Participation in resuscitation at a hospital, in a medical or dental office, or at any other medical or dental facility, or in an ambulance, either alone or in concert with others or on a constituted resuscitation or rescue team.
6. Rendering emergency care to a person for a medical complication arising from prior care by another physician.

7. Performing screening examinations on a volunteer basis to special groups such as school children, boy scouts, etc.

8. Treating minors under emergency conditions when permission for treatment from parent or guardian cannot be obtained.

PROFESSIONAL LIABILITY INSURANCE: It is now reasonably easy to buy professional liability insurance in Alaska as several agencies in Anchorage have begun writing policies again, but premiums remain high (up to \$6,000 annually). Many physicians are unwilling or unable to pay such charges. At least 6 physicians in Alaska do not carry malpractice insurance; this is a reduction from 14 last year.

The cost of such insurance adds to the cost of practicing medicine and the physician indirectly passes them on to the patient. Costs here are less than the average Los Angeles County malpractice insurance premiums, which are now \$7,000 annually.

The greatest cost to the patient, however, is that, because of threat of suit, the physician does not always exert his best judgment. He becomes conservative and uninventive in his care of a patient, unfortunately thinking of his own protection. He orders more than enough lab test, x-rays, office visits, and hospital days just to be sure that something is not missed.

Because of the shortage of doctors it is imperative that physicians not waste their time in these self-protective activities. As paramedical personnel assume more care of patients under direction, there will be added liability for the doctor, as well as liability for the aide too.

The Alaska State Medical Association sees no way out of the problem short of limiting awards or abolishing contingency fees. Other partial solutions under consideration are:

1. State participation in malpractice actions either by providing insurance coverage for physicians or by being a party to any suit (SB 148)
2. New Jersey rule of court which offers review of a case by a medico-legal panel and which, if reasonable basis is found, provides expert witnesses. A joint committee of the Alaska State Medical Association and the Alaska Bar Association is considering such a system for Alaska. Insurance industry attitude toward this is mixed. If review is not mandatory skillful negligence attorneys generally will not use a medico-legal review committee.
3. Mandatory peer review in which a group of physicians chronologically reviews and interprets for judge and jury the events of a case.
4. Immunity from civil suit for activities of physicians on boards, committees, resuscitation teams, etc. (see above).
5. Revision of statute of limitations to date from time of injury and not from any other date.
6. Requiring the losing side in an action to pay costs for both sides.
7. Requiring plaintiffs to post bond of \$500 or \$1000 if more than one party is named in a suit.
8. Providing that advance payments to claimants would not constitute admission of liability.
9. Defining negligence narrowly to preclude negligence if any untoward result of treatment could have occurred in the natural course of the disease or injury.
10. Requiring licensure or eligibility for licensure by out-of-state expert medical witnesses.
11. Making membership in the Alaska State Medical Association mandatory and allowing it to be the licensing body in the state. It could in turn require physicians to report all suits or threats of suits.

BUSH MEDICINE COMMITTEE REPORT

January 1970

INTRODUCTION:

The Bush Medicine Committee of the Alaska State Medical Association feels that there is a need to re-evaluate present and past programs and procedures for providing health services in rural Alaska.

In order to adequately deal with the problems involved, the State of Alaska needs to be divided into functioning health regions recognized by state, federal, and private health groups.

The Bush Medicine Committee strongly supports a prompt and generous land claims settlement. Hopefully part of the money will be devoted to developing native health care.

PLANNING:

The Comprehensive Health Planning Advisory Council can provide the state of Alaska with a means of state-wide health resources planning. The Bush Medicine Committee of the Alaska State Medical Association feels that the Comprehensive Health Planning Advisory Council should be strengthened and vitalized and that strong active committees should be established.

FACILITIES

Development and construction of facilities throughout the state should be planned and coordinated through the Comprehensive Health Planning Advisory Council.

All facilities constructed, whether federal, state, or private, should be planned with a maximum of local participation and control, open to all properly licensed and qualified physicians, and with health care provided on a non-segregated basis.

- A. Adequate village health centers need to be built and maintained.
- B. Many of the hospitals and facilities currently existing in bush areas, such as Bethel, need up-grading and expansion. Construction should provide facilities not only for Public Health programs but for state programs such as public health nurses, welfare, and social workers.
- C. In semi-rural areas now served by private medicine, state and federal funds should be made more readily available to help local communities expand, improve, and maintain their facilities.

- D. The Bush Medicine Committee feels we cannot afford the present and planned duplication of medical facilities and the future planning and construction of medical facilities should be cooperative and combined.

MANPOWER:

The major obstacle to up-grading health care through the state is a shortage of skilled medical manpower. This shortage will not change in the foreseeable future. The difficulty of attracting adequate numbers of skilled medical personnel to peripheral areas necessitates the development of a vigorous program to train capable young people who can return to their respective areas and provide the much needed skill.

- A. The State of Alaska, through its university systems, should develop programs for training paramedical personnel.
- B. The training of the village health aide should be up-graded and coordinated with state and private health providers.
- C. The independent provision of medical services, by paramedical personnel, without physician supervision in out-lying areas should be surveyed and evaluated.
- D. The effectiveness of physicians practicing in remote areas can be enhanced by the use of visiting consultants. When necessary, financial support for these services should be available from state and federal agencies.
- E. A program for continued medical education of paramedical personnel should be developed by the state in cooperation with federal and private resources.

FINANCES:

Since settlement and development of bush areas is to the advantage of the state and federal governments, the added cost of health care in these areas should be the responsibility of state and federal governments. Where such care is provided by private physicians and facilities, a consistent and adequate program of support is essential.

GET INVOLVED, GET RELEVANT

By A. von Hippel, M.D.

National concern for newly recognized problems such as poverty, infant mortality, urban congestion, environmental pollution and crime in the streets has attained epidemic proportions. Recent popular articles suggest that the medical profession is at least partly responsible. Apparently the physician treating tonsillitis with (non-generic) penicillin or removing a diseased appendix (for a fee) is no longer relevant. The public expects the physician to lead, and as a pre-condition for leadership he must take "The Vows":

Poverty: The evils of medical affluence have been adequately detailed. We must willingly give up our worldly goods in atonement for having let the situation get this bad. Physician poverty is essential if we truly wish to attract a flood of well-motivated young people into the profession.

Chastity: In this period of multiplying medical demands, the physician must recognize that he cannot devote his life to medical practice and still have time for wife and children. Further, with population control such an overriding issue, the physician can hardly expect his patient to undergo tubal ligation or vasectomy, as a gesture of community responsibility, if he himself is not willing to undergo this; and when in fact he often blatantly produces more than one offspring. In this age of social responsibility it seems reasonable to expect women students who will be taking essential places in medical school classes to undergo hysterectomy as an admission requirement. This would eliminate the great pool of trained talent currently inactivated by irresponsible motherhood. Likewise, entering male students could be required to undergo orchiectomy.

Obedience: The third step into the "new" medicine", that of absolute obedience to the party in power, should present no obstacle to the dedicated physician with no money, no family obligations, and no testicles. Once all physicians have agreed to let the politicians establish medical priorities and control the distribution of medical care, we will have eliminated the greatest complaint of the public against the medical profession, that of inequitable distribution of physicians. Many an overworked physician, tied down to his busy practice providing care for the wealthy as well as the poor, has felt the bitter pangs of guilt because there were too few physicians available to poverty areas. Mandatory reassignment to "impacted" practice areas on the basis of voting population, rather than previously established medical needs and referral patterns, should result in happiness everlasting for both patients and doctors alike.

Group practice will be required in all areas having more than one physician. Governmental bodies have long yearned to exert control through a manager of physicians rather than having to deal with the individual physician himself. At a time when a very small minority of physicians have voluntarily selected group practice, it is vigorously touted as the medical wave of the future. Once physician poverty is guaranteed, the group will no longer face the financial pressures against referral of patients outside of the group into the local medical community when in the patients best medical interests.

Depending upon the size of the medical community, two or more groups or teams can be set up on a contractual or slavery basis similar to the American and National Baseball Leagues, with bonus bids going to the government supported medical schools or residency programs to assure an equally adequate or inadequate supply of the various specialties within each group. Certainly it would be against the American Pioneer Ethic not to have at least two competing groups in most areas.

Proper adherence to the three vows would eliminate many currently vexing problems in medical care. Malpractice litigation would become a thing of the past. The natural sympathy of the attorney for his poor professional brother, the physician, would now take precedence over his sympathy for the litigant, particularly as collection of a judgment would now be impossible. In any case, laws regulating all aspects of medical practice (patterned on current exemplary regulations on medical aspects of abortion) will, no doubt, make malpractice illegal.

Obviously medical licensure procedures, the granting of hospital staff privileges, and the functioning of medical and hospital staff regulatory committees are too important to be left in the hands of physicians, and these will properly be functions of a subcommittee of the legislature. For better public understanding of medical committees, such as the tissue committee, deliberations could be televised on an Educational T. V. channel.

A simple medical life dedicated to these simple vows should regain for the modern physician the public esteem once held by the good old horse and buggy doctor who devoted his life to the patients of his village and in return got a big party, a gold watch, and his picture in the local paper upon retirement.

Conceivably there may be reactionaries still in the practice of medicine who do not agree with the

above widely held concepts and plans. On past performance one might anticipate that they would claim to be working overly long hours under increasingly onerous regulations, and further, that they could anticipate a time when competent persons might not voluntarily elect to practice medicine.

To these men, some of whom are undoubtedly sincere, I would say, think back--how many phy-

sicians have even become President of the United States, or even Supreme Court Justice? That is "Where the action is". It is "Where it's at, Man!" A physician devoting long hours to the care of his patients, especially if many of them are wealthy, is not fulfilling his duty to the public. In any case his reactionary attitudes will become less important in time as the new generation enters practice.



Sea Lions

Photo by Nancy Wright

"A PART--NOT APART"

By Lawrence J. Sullivan

*Coordinator of Comprehensive Planning
Alaska Department of Health and Welfare*

I have attended several Council meetings of the Alaska State Medical Association and have heard much discussion about our health care system. I question the fact that we have a system. It is my honest opinion that there is no health care system, but rather a conglomeration of health care activities. As a State, up to the present, those of us providing health care have flourished on our apartness and individual initiative. Health care programs have been fragmented duplicated, and operated with mutual exclusion. Our current activity is composed of many facets: The private practice of medicine. Federal and State Public Health programs, and the hospital system. In addition, we have the Heart Association, Cancer Society, TB Association, and other voluntary health and welfare agencies, each proceeding down its own narrow pathway.

The time is here for all of these providers of health care to become a part of the community rather than apart from the community.

The mechanism to accomplish this gigantic task is available--the State Comprehensive Health Advisory Council. If we stop and concern ourselves with the multiplicity of problems and programs affecting the delivery of health care, none would negate the need to think about the future and to plan for it. We must plan wisely so that available monies are effectively put to use to provide for what Congress has clearly stated as an American Health Goal in the declaration of purpose of PL 89-749:

The Congress declares that fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person in an environment which contributes positively to healthful individual and family living.

This then is the function of the Comprehensive Health Advisory Council; to attempt to gather and fit together our myriad systems of health care. Because of the complexity of the health problems facing the Council, it is obvious that it cannot function in a vacuum, alone, or in an ivory tower.

The art of planning is not enough to make ideals come true. It takes a synthesis of planning and the involvement, the understanding, and the enthusiastic support of all concerned with the delivery of health services, both professionals and consumers.

It mandates that the most individualistic of

professions and organizations work together, and join hands in a real "partnership for health," to develop programs and services which are in the best interest of all. The effects of this planning will not only be felt by the consumers, but by its very nature, by professionals as well. This requires that you, as professionals in medicine, public health, mental health, have to divest yourselves of your own particular interests and work together to achieve the common goal: Quality care for the patient and the judicious expenditure of health care monies.

In summary, let me indicate what I think are some of the major points of the role of the CHAC:

1. To determine health needs.
2. To examine alternative solutions that in a given case are determined to be the best for the physical, social, and financial well-being of those being served, taking into consideration also the needs of those who provide the service.
3. To be comprehensive in its planning and to involve all pertinent segments of the community or state in studying the needs and in seeking alternative solutions.
4. To realize that no one group of professionals or consumers alone have all the answers, hold the key, should force their wishes upon the whole.

These, by far, are not all the facets of comprehensive planning, but they do show that for the Council to work effectively takes cooperation and understanding by all.

What we are undertaking in health care planning is one of the most complicated experiments in inter-governmental, inter-professional, public, and private relationships ever undertaken in American history. The real test of the pudding will come in our communities and our professions. Will we all be prepared to adjust our individual aspirations and fit them into a larger social setting? As we think of the magnitude and complexity of the problems that face the Council, let us take heart from Winston Churchill. When he was asked in late 1941 how long it would take to lick the Axis powers, he answered, "If we manage it well, it will take only half as long as if we manage it badly."

I trust we will all work together and manage it well.

WHO PLANS

By Glenn B. Crawford, M.D.

Anchorage

In a distant city, in the not too distant past, during a meeting of all learned healers and physicians of the area, it was deemed desirable that a large edifice be constructed in which various member practitioners would have offices to carry out their daily activities. In order to accomplish this great task the society of physicians and healers appointed an advisory group of twenty-five of the most representative and knowledgeable from their membership. They called this group The Professional Building Planning Advisory Council and charged them with the responsibility of evaluating the need and desirability of such a building, the resources and materials available for its execution, the planning and coordination of construction, and the continued maintenance and evaluation of the ultimate structure.

Many months went by during which the advisory council met weekly and deliberated at great length on the gravity of their responsibility. As befit their collective wisdom they sought out the counsel and experience of similar advisory groups from other lands with the same goal. By some mysterious and probably not deliberate oversight, possibly as a means of not being prejudiced, they avoided consulting with those who had already built buildings.

It soon became obvious that the planning and ultimate construction of this building was indeed very desirable, and in order to accomplish this it would be necessary to form committees within the group of twenty-five advisors. The urologists were appointed to the committee on plumbing and sewers, the neurologists were on the committee on electrical wiring, the orthopedic surgeons were appointed to carpentry and framework, the cardiologists and pulmonary physiologists to heating and ventilation, and the dermatologists were on the committee for painting and finishing.

As these subcommittees began to meet regularly and consider their responsibilities and to share their knowledge, it became obvious that they needed outside opinions. For example, in the committee on plumbing the urologists felt that in order to adequately complete their task it would be necessary to seek out the advice of a plumber. This advisor to the advisory council was called upon to furnish the committee with a detailed list of sizes and lengths of various available pipes. He was even asked at one point to provide a demonstration of how these pipes were joined. Then, in order to mold this information into a comprehensive whole and to answer such delicate questions as the placement and color of commodes, particularly as they related to frequency and urgency, the committee imported one of the

most famous of professors of urology and sought his recommendation on such matters.

Similar activities were being carried out in other committees. In the heating and ventilation committee, one of the more active and thorough groups, an actual task force was appointed consisting of all those in the surrounding communities who manufactured boilers, pumps, and fans. This information was compiled in a very detailed report that included a foreword by one of the world's greatest cardiologists on the dynamics of fluid and air flow.

Periodically, the Professional Building Planning Advisory Council met as a whole and considered the various committee reports. The committees were inevitably commended for their detailed investigations and recommendations and the reports were duly moved and voted upon and accepted in a manner appropriate to the democratic process.

When the total pile of committee reports had reached a predetermined, albeit arbitrary, height they were bound and indexed in an attractive manner and transmitted to a group known as the Department of Building Construction. The DBC, as it was locally known, proceeded on the basis of these committee reports to erect the great edifice. The society of healers who had originally appointed the twenty-five members of the Advisory Council watched with considerable apprehension as a building took shape which contained five toilets in the middle of the waiting room without benefit of enclosing walls and other errors of less glaring magnitude. At last those responsible for financing and paying for the building issued a mandate stipulating that an architect must be employed.

The architect, as befit his training, proceeded to prepare a plan for the construction of a building that was comprehensible to the Department of Building Construction and the various tradesmen and journeymen within the department. As discreetly as possible he pointed out to the various committees great catalogues of information that had already been compiled on plumbing and wiring and paints and finishes, that were in most instances more complete and detailed than the committee had gathered. As delicately as possible he pointed out the advantages of a consulting mechanical engineer rather than a task force of local plumbers.

The acceptance of the architect as a planner and coordinator of the activities of the Department of Building Construction and as an inspector and an evaluator of their final achievements was not instantaneous and without some difficulties. The objections and difficulties, however, slowly subsided as the

Advisory Council began to realize that they were not being usurped but that they were being utilized in a manner appropriate to their experience and training. The architect called on them frequently and often asked the urologist to advise on the amount of space necessary for his practice, and the electrical requirements for his equipment, and similarly with the orthopedic surgeons and the dermatologists and cardiologists. Ultimately a fine and splendid building serving the purposes of its occupants and well

coordinated with the community and surrounding buildings was erected.

The architect conclusively proved to the society that planning and coordination of a plan is a specific skill, requiring training and experience, and that advisory committees may be frequently called upon to evaluate a particular phase or make suggestions for a different approach to a difficult problem.

Perhaps it is time for the State Comprehensive Health Planning Council to engage a planner.

NEWS FROM THE ALASKA HEALTH SCIENCES LIBRARY

The bibliography and research services of the Alaska Health Sciences Library are an important service to Alaska's physicians. So far, over 64 percent of the Anchorage physicians and 43 percent of the physicians residing outside Anchorage are using the library's services.

If you have a medical problem, call the library (at 279-6661, ext. 170), and the staff will search the recent literature and send you Xerox copies of pertinent articles. This service is free.

Collections of recent articles, available at AHSL, include:

- Exercise and the Electrocardiogram. Jan. 1964 - Sept. 1967
- Multiphasic health screening
- Oral contraceptives and their adverse effects.
- An evaluation of intrauterine devices and their usage.
- Various methods of family planning.
- Papillary carcinoma of the Thyroid.

Among the many new journals which will be added to the library's collection beginning in January 1970 are the following:

- Gastrointestinal Endoscopy
- British Journal of Surgery
- Acta Ophthalmologica
- Angiology
- Circulation Research
- Current Problems in Surgery
- International Journal of the Addictions
- Journal of Electrocardiology
- Journal of Neurology, Neurosurgery and Psychiatry

A complete list of journals will be mailed soon, and you may request additions to your journal "Table of Contents Service".

The following books were recently added to the library:

Israel, Spencer L. Diagnosis and treatment of menstrual disorders and sterility. 5th ed. New York, Hoeber, 1967

Mendel, David. A practice of cardiac catheterisation. Oxford, Blackwell Scientific Publications, 1968.

Mostofi, F. K. and David E. Smith, eds. The Kidney. An International Academy of Pathology Monograph. Baltimore, Williams & Wilkins, 1966.

Orbison, J. Lowell and David E. Smith, eds. The peripheral blood vessels. An International Academy of Pathology Monograph. Baltimore, Williams & Wilkins, 1963.

Rook, Arthur, D. S. Wilkison and F. J. G. Ebling, eds. Textbook of dermatology. 2 vols. Philadelphia, Davis, 1968.

If you would like to see these or others, please call the library.

The library is open and staffed three evenings a week (Monday, Tuesday and Thursday until 9:00 pm) in addition to regular daytime hours from 8:00 am to 5:00 pm Monday through Friday.

A key to the library is available at the hospital switchboard at all times. A member of the library staff will help you with an urgent problem during off hours.

IMMEDIATE AND LONG TERM RESULTS OF A CONTROL PROGRAM

By Geraldine T. Morrow, D.M.D.

President, South Central District Dental Society

The Southcentral District Dental Society is actively working with the local School Administration to establish a pilot control program in one or more of the Junior High Schools. The Dental profession would contribute in some measure, possibly by the recruitment and training of a Hygienist to organize and conduct the program. It would be modeled after Dr. Robert Barkley's successful methods, and the Hygienist in charge would be indoctrinated by Barkley in his own office. The plan is ambitious and would set a precedent, but appears promising at this point. The following article by Gerry Morrow was used as part of the presentation to the Greater Anchorage Borough School District.

R.A.S.

Preventive Dentistry

The "new look" in preventive dentistry is only slightly different from the "old look". But to the person whose way of life has been transformed by it, the difference is like night and day. The research findings of Bass and Arnim in the patterns of disease progression are the greatest single dental health contribution to mankind during our lifetime.

We must teach people to control their disease and establish standards for patients to maintain. In order that the procedure not be abandoned, we need rapid results and early spiritual and material returns. If success comes early, the change will become permanent. The attitude of the patient must be that dental personnel are partners with him in the battle against dental disease. The patient can thus expect good restorative dentistry with maximum life expectancy.

First, we must get people to control their active disease. This must be coupled with thorough diagnosis and a planned corrective program to give the patient the best chance to avoid future disease when a patient is carried through a total program, i.e. teach them to control their disease, restore their mouth, and then be certain they keep it that way; they will never lose their teeth. Working with seventh and eighth graders, we have the patient before the treadmill of disease has started. Most of their teeth are newly erupted and the amount of corrective work minimal; control is his salvation and he need never lose a tooth from decay or pyorrhea.

The establishment of an agreed upon philosophy on how dentistry should be approached is the first step in acceptance. The patient is encouraged to see dental care in terms of a good dentist-patient relationship; and as a cooperative, long term effort of prevention and correction aimed toward providing



Dr. Geraldine T. Morrow

the patient with a lifetime of attractive appearance, comfortable chewing and lowered dental repair costs.

The main purpose is to help the child prevent dental disease. Science has proven preventability; it is only a matter of practical application of our knowledge. We can control those decay lesions that might be arrested without repair by the use of the control program and topical flouride. Rampant (severe) caries we know to be caused by a food habit usually handed down from parents. Only by altering the child's, or better still, the family's life habits in eating and oral hygiene can we hope to achieve lasting results. When we fail in our preventive efforts the best possible corrective treatment must be provided.

The best we can offer is a poor substitute for the original healthy oral tissues. All corrective treatment can be considered a potential periodontal problem and must be planned to allow for the greatest possible ease of achieving an acceptable level of cleanliness. Education for prevention must be offered to all patients regardless of background or classification. The poorer patients can least afford extensive

repairs. They need the help the most. If preventive practices are adequately taught and thoroughly inducted into the daily lives of the children, they will look forward to a future of good dental health.

Since mouth cleanliness is the greatest single factor in prevention of dental disease, considerable effort must be expended to be certain each patient receives one thorough daily cleaning. This can be accomplished only through carefully supervised instruction and permanent follow-ups. The care a child gets before the age of 18 will largely govern the amount of care required by him as an adult.

The health of the mouth depends entirely on the individual. What happens in his mouth influences him as a total person. If his teeth do not look right or if he has bad breath because of dental hygiene problems, or if he has a toothache, it affects more than his mouth. If his mouth is not healthy it may have adverse effects of his entire body. Compare going to the dentist only for repairs and not caring for your teeth between visits with not servicing a car until it completely stops running and then taking it to a mechanic. It is a poor way to care for a car and a poor way to care for your teeth. The best repairs are a poor substitute for natural healthy teeth. It can be expensive and a never ending expense because each trip to the dentist only fixes those areas damaged badly enough to need repair and the moment you leave the dental office the cycle that is causing the damage continues its destruction.

The ultimate aim of dentistry is saving your teeth. Repair can go just so far and then you begin to lose teeth. This can be likened to a physician whose patients have a fatal illness and would eventually die no matter what he did. That is exactly what the dentist has been facing for years. What makes the thought more dismal is the knowledge that with an adequate program that teaches you to control your dental disease and with adequate corrective treatment your teeth can last a normal lifetime. The patient must play the leading role, while the profession acts as supporting cast. Controlling dental disease is easier, cheaper, and more fun for all involved than repairs.

Our goal for children is to have them graduate from high school with all of their teeth and with as few fillings as possible. We want to make them so capable of controlling their oral bacteria that they will be set up for a lifetime of good health and very low maintenance costs.

After the disease is stopped by the control program and the necessary repairs are made, then **ALL** repairs (except small defects in formation of pits and grooves) can be considered a result of failure in our preventive efforts, and these must be kept at an absolute minimum. Child or parent responsibility for bacterial removal cannot be left to the dentist. Remember, the care given a child's teeth before age 18 will largely govern the amount of dental care required by him as an adult.

LONG-TERM RESULTS

1. A philosophy of dentistry.
2. A concept of what dental health should be.
3. The development of a cooperative, long-term effort of prevention and correction aimed toward providing the child with a lifetime of attractive appearance, comfortable chewing and lowered dental repair costs.
4. The development in the child of his personal responsibility in the health of his own mouth.
5. Learning health and nutritional sciences with himself as the text.
6. Food habits in cases of rampant caries must be dealt with, thus learning and seeing the results in six months.
7. Self reliance that comes from knowing that the individual, alone, is responsible for establishing and maintaining dental health.

IMMEDIATE RESULTS

1. Immediate control of active disease.
2. Gum tissue with denuded epithelium will heal in 6 - 8 days.
3. Incipient caries (areas just starting to decay) will harden and not develop further. (Fluoride application here will increase this hardening)
4. Bad breath (other than that originating from the stomach and intestines) will no longer exist.
5. Attack of oral tissues by invasive organisms, bacterial, viral, fungal and protozoan will be all but eliminated. Attack by normal flora as well as above at times of lowered systemic resistance will be eliminated.
6. The program at this age level develops manual dexterity and appeals since the three chief tasks of the teen-ager is developing independence, getting along with the opposite sex and developing his education.

GOALS

1. No student in the Anchorage Public School system ever experience a toothache.
2. That he never lose a permanent tooth.
3. That he graduate from high school with all of his teeth and as few fillings as possible.
4. That he may never fear one drawback of popularity, that of bad smelling and bad appearing teeth.



AURORA DENTATUS

By **R. A. Smithson, D.D.S.**

Anchorage

Drs. Tony Oney and Hoppy Harrower are preparing for their eighth trip to polar bear country.

Lt. Col. William Harrison spoke to the Anchorage group on Occulsion and T.M. J. Dysfunction; **Dr. Richard Day** on The Transition from General To Orthodontic Practice.

Several men plan to attend the U. of W. Course in Juneau March 6, 7. **Dr. Gordon Christensen** of Denver is an outstanding clinician and **Dr. Tom Lewis** is to be congratulated and thanked again for arranging another superb course for Alaskans.

ALASKA STATE DENTAL SOCIETY CONVENTION June 7-10, 1970

CONVENTION HOTEL - Anchorage Westward Hotel, Anchorage, Alaska

CLINICIAN - Dr. Merrill Harrington - "The Best is the Easiest"

SCHEDULE:

Sunday, June 7, 1970

5:00 pm - 12:00 pm -- Come in time to enjoy a gala registration and welcoming party at Dr. Driskell's

Monday, June 8, 1970

7:30 am - 3:00 pm -- Registration at Anchorage Westward Hotel

7:30 am - 8:00 am -- Buffet breakfast in the Commodore Room

8:00 am - 10:00 am -- Convocation and welcoming

10:00 am - 12:00 noon -- Committee meetings

12:00 noon - 1:30 pm -- Lunch

1:30 pm - 4:30 pm -- Clinical Session in the Commodore Room

6:30 pm - 7:30 pm -- No host cocktail party in the Alaska Room

7:30 pm - 10:00 pm -- Banquet and entertainment

Tuesday, June 9, 1970

7:00 am - 5:30 pm -- Trout fishing and/or hiking trip with catered lunch at Ihlham's Newhelen River. Fish assured for anyone serious about catching them. Thirty inch Rainbows available. May fish from shore or boats available for rent. Transportation will be provided from the Westward doorstep. Information on temporary fishing licenses, care of fish and cost will be in the pre-registration form. This will be a chartered flight so get your reservations and checks in early. Pre-registration will be required for this trip. In case of inclement weather alternate activities are planned

6:30 pm - 8:00 pm -- Cocktail Party - hosted

8:00 pm - ? -- Stag Party

Wednesday, June 10, 1970

7:30 am - 9:30 am -- Buffet breakfast and business meeting in the Kenai Room.

9:30 am - 12:30 pm -- Clinical Session

12:30 pm - 1:30 pm -- Past Presidents Luncheon in the Executive Suite

1:30 pm - Finished -- Business Meeting

Our hospitality room will be open on Monday and Wednesday

Pre-registration cards will be mailed the first part of April. Please call in for reservations now as they are very scarce. The Westward is only holding a block of 15 rooms for us. After that we will try at the Travelodge, Captain Cook and private homes.

There will be no registration fee for state society members. A charge will be made only for those functions you attend, for which tickets will be collected at the door. Only automatic charge will be for the members at the two business buffet breakfasts.

ALASKA STATE DENTAL AUXILIARY

June 7 - 10, 1970

Sunday June 7, 1970

Registration and cocktails (same as Dr's)

Monday June 8, 1970

Registration at Hotel (same as Dr's)

Hospitality room available.

Monday noon -- Dental Auxiliary Annual Luncheon

Monday P.M. -- Annual Dinner (cocktail dress)

Tuesday June 9, 1970

Tuesday A.M. -- Fishing trip or hospitality room

Tuesday P.M. -- Cocktail party

Wednesday June 10, 1970

Wednesday A.M. 10 - 12 -- Demonstration "New Ideas in Dentistry"

Wednesday noon -- Past Presidents Luncheon

EENT FIELD CLINICS, 1969

By Milo H. Fritz, M.D.

NOME CLINIC - 7-14 September

On a recent field clinic in Nome I examined 216 patients for eye and ear, nose and throat problems. Fifty seven pairs of glasses were prescribed. My loyal friend and co-worker in these clinics since January of 1955, Guild Optician Mr. John Spahn of Anchorage supplied the spectacles prescribed within a few days of our leaving this historic little place.

We also did seven T&A's under general anesthesia, expertly given by Dr. Grace Jansen, anesthesiologist of Anchorage, who kindly came down on short notice to help us. We did one tonsillectomy under local anesthesia.

As usual our clinic operation was set up in the daylight basement of the hospital, where from time to time, and between the steady flow of patients, a glimpse of the gorgeous sky and autumn colors would supply enough relief from the occupational claustrophobia from which all EENT men begin to suffer after about twenty-five years in operating rooms, clinics, and offices (where they do their stuff and illumination is of cocktail lounge intensity, but without the girls or booze).

It might interest the ophthalmologists who read this that I have two new instruments that I find very useful. First there is the Kiowa hand slit lamp, which boxed for travel weights sixteen pounds versus the Poser slit lamp that I used to carry with me which boxed weighed eighty pounds. The Kiowa slit lamp takes a little while to dominate and requires the use of both hands to focus on the part of the eye being examined. I do not know how it would work for removal of a corneal foreign body, but I am sure that it could be used successfully.

The second instrument is the indirect ophthalmoscope made by the American Optical Company. It is a superb instrument optically, light and essential in examining the periphery of the retina.

The journey from Anchorage to Nome which sometimes took two or three days in the late forties and early fifties was made by jet in less than two hours flight time.

Sister Maria of Providence (Roman Catholic) was administering the Maynard McDougall Memorial Hospital (Methodist), a living example of practical ecumenicalism. She kindly allowed John, my wife, and myself to use the doctors residence a few blocks from the hospital.

The windows gave out on a small creek, blue as the gorgeous sky above, and the warmly beautiful gold, orange, and purple grasses and lichens that carpeted the land as far as the eye could see. With no trees about, the feeling of being untrammelled was welcome after the confines of the city. The air

was crystal clear. One seemed to see each blade of grass and rock up to the horizon with the greatest clarity. As the grasses and lichens nodded in the wind, changes occurred in their hues of gold and red that were most soothing and hypnotic to our metropolitan frazzled nerves.

On three especially clear nights we lay in bed watching the Northern Lights march majestically across the deep blue heavens.

John and I climbed atop the oil tanks that used to supply the thirty-six giant diesels that once generated power for the eight great gold dredges that now are slowly rusting into oblivion.

Mr. Glavinovich, custodian of the United States Metals & Refining Company properties, took us through the power plant and the supply buildings of the company, now inactive. Gold mining has died, owing to the impossibility of selling gold at the 1934 price while having to pay for the operation at 1969 wages. We saw old artillery wheels from wagons that we had used years ago, slowly sinking into the muskeg. A great grindstone is also being slowly engulfed, even though progress and optimism pervades this small forgotten city.

In town, the main street of Nome was ready for black topping. The wooden walks had been torn up. This was a bonanza for the youngsters of Nome who found many silver and a few gold coins buried in the sand over which the old walks had been lain since the great fire that razed the town around 1928. We were captivated as always by the immense dignity of the elder Eskimo ladies with their great presence, dark brown faces, and smooth and flawless skin. Leavened by poverty, ill health and tragic loss, in some cases of almost all of their children, they have a serenity and dignity both beautiful and regal.

For reasons of "economy" nothing but emergency in-hospital care can be given to the Native people, who are then transferred to either Kotzebue or the Anchorage Native Hospital. This often reduces any private physician in Nome to the status of a first aid attendant; one reason why physicians are no longer attracted here to private practice. Also, the hospital is having difficulties because emergency care is usually the most expensive, and something in the neighborhood of \$70 for a patient day is all the government will pay irrespective of the cost of the emergency care.

About forty-four percent of the patients at this clinic were Eskimos. Although eligible for "free" eye examinations and "free" glasses, they elected to be private patients and buy the spectacles of their choice instead. "We see through them glasses."

"They fit better." "We get them in a few days and we like this" is what they said.

The hospital has been augmented by the addition of a steel building with a new deep well and a new heating plant, making things better all around. Sister is rearranging the rooms and tearing out and adding partitions to create a little nursery, a convenient emergency ward, and a more modern dishwashing and food handling department, all badly needed physical reforms.

A dandy new restaurant, Del Monico's, has been established in a Quonset-type hut. It serves well cooked and attractive meals, family style. Many tourists go here. But there is nothing to look at. The dining room of the North Star, right on the sea wall made of high piles of rocks that keep the Bering Sea from washing the city away, looks out on the water and the teenage social life, much of which is carried on along the breakwater. A small man-made harbor is the only protection small boats have from the severe southeasters and southwestern winds that blow here frequently.

No greater satisfaction professionally has come to me than holding these itinerant clinics throughout Alaska. With thirty years activity in a stimulating field and sixty years on my back, further activities become increasingly difficult. While EENT services are in greater demand, many other medical specialists can serve rural Alaska. Living out of suitcases and the necessary paper work are burdensome, true enough. But the fun of travel, the exercise of one's adaptability, and the singular attractions of each place more than compensate. Who will carry on the work? If we as private physicians won't, the government will force us to.

Almost one hundred physicians practice in Anchorage. Most do well enough. Some do things outside of their sphere of interest and field of training for lack of a large enough practice. By adopting a series of rural areas to which they can bring their specialties, their lives as well as their purses will be enriched. A bonus, of course is the cooperation and the appreciation that conscientious and kindhearted service always brings.

Opportunity's knuckles are raw from knocking on physicians' and nurses' doors. Will they respond voluntarily, or will they be forced to do so by yet another branch of the federal government, which will probably be called the Federal Itinerant Medical Services for Disadvantaged Rural Areas.

KODIAK CLINIC 9-22 November

The highlight of this sixteenth annual A. Holmes Johnson Memorial Eye, Ear, Nose, & Throat Clinic was the pleasure of working in the new Kodiak Island Hospital, where we were made most welcome by Sister St. Paul, the surgical supervisor,

and Sister Mary Leo Superior, who celebrated the 25th anniversary of their arrival in Kodiak during our visit. On this trip we traveled in a four-engine turboprop which, as all other aircraft, must land on the strip belonging to the Navy. This is a one-shot arrangement, at the end of which is a four or five thousand foot peak, Barometer Mountain, upon the sides of which have been deposited the remains of many an aircraft since World War II.

The small boat harbor was completely filled with vessels, since a strike of crab fishermen was in progress during the latter part of our stay. Thus it was possible for John and I to wander on the waterfront and examine the shipping with great interest. We talked with the owners and crewmen in the cold sunshine of our last morning there. I noted how each year the boats are larger and have more electronic and hydraulic gear aboard.

On this clinic we saw 335 patients, including 54 cases operated upon. Eighteen cases were seen on referral while 317 patients learned of our visit from local newspaper announcements. The great complaint, of course, as far as the Kodiak Island Hospital is concerned, had to do with the intractable obstinacy of the United States Public Health Service. It seems they insist upon paying the hospital \$70 per day for every patient admitted. Only "emergency" cases are eligible for admission. The result is that the true emergencies requiring nursing around the clock, special laboratory tests, transfusions, intravenous fluids, cardiac monitoring, and the like, cost far in excess of \$70 a day. By the time the emergency period has ended and the hospital has begun to break even, the rules require that the patient, now in better condition, be transferred to the USPHS facility in Anchorage.

While I was there a woman in her fifties came in with an advanced abdominal condition for which Dr. John Eufemio had to operate. She had a stormy convalescence requiring the most expensive kind of medical and surgical care available. It cost, I believe, in the neighborhood of three or four thousand dollars. The hospital will be paid \$70 a day for her hospitalization.

Most of us favor economy in government, but this does not imply that those who supply such services as I have described should go in the red because of an arbitrary rule, promulgated by representatives of a great bureaucracy, whose administrators seem completely isolated from fiscal reality and the problems of the hospitals with whom they negotiate "contracts."

SITKA CLINIC 2-11 December

Looking down at the landing strip which serves Sitka one can hardly believe that any pilot would risk a small plane, much less a great jet, on such a small piece of real estate. I think it appears shorter

than its 5,000 feet because of the vastness of nearby mountains, and the wide expanses of open water surrounding it on three sides. This deceptive smallness, with the violent turbulence that kept stewardesses strapped in their seats, unable to serve coffee, tea, or air sickness bags, unnerved us as we arrived. It was good to be on the ground and hear and feel the reassuring roar of the reverse thrust, the powerful brakes, and the diminishing rumble as the plane finally came to a halt within what appeared like millimeters of the waiting water.

Once landed on the Sitka airstrip, one is by no means in the little city itself. One still has to take a bus to the shore boat dock, and then climb into a World War II 55 foot, diesel powered shoreboat, called Donna in order to traverse the 300 yards of water between Mt. Edgecumbe (on which the airstrip is built) and Sitka itself. Baggage is transferred later in the day by a truck brought across the water on a barge. This complicated maneuver will be greatly simplified on the completion of a bridge between the Mt. Edgecumbe Island complex and the city of Sitka, which is to be started in 1970.

On this field clinic we saw 186 patients, and worked out of The Sitka Hotel, where The Sitka Telephone Company activated our telephone so that we would not have to depend upon the hotel switchboard for the continuous use of the telephone that modern medical practice demands.

Although the use of make-shift quarters may be helpful in keeping consultants from becoming too rigid in their ways, those smaller communities that can afford it would expedite consultant care by construction of a small building (similar to the health center) for the visiting consultants to live and work in. Such a structure would be separate from the local hospital, if any.

The Sitka Community Hospital is obsolete and totally inadequate for the work that must be performed here for patients from Sitka and the surrounding area. Meanwhile, across the channel, a 200 or 300 bed United States Public Health Service Hospital is 40% occupied but open only to those of Native blood. The physicians of Sitka cannot bring their private patients here, even when their own hospital is overcrowded, with beds sometimes in hallways and other areas not designed for patient care. It is impossible for me to rent space in these vacant halls and unoccupied wards to hold these clinics. Such rules violate common sense and the Supreme Court decision of 1964 that struck down any segregation in schools or hospitals because of race, color, or any other considerations except respectively the need for education or being ill.

The New York Eye & Ear Infirmary under the aegis of Dr. Ernest Weymuller, has an otology program going at the USPHS Hospital. The present incumbent, a fine young otologist, Thomas Stengl, late of Minnesota, is restricted in his activities, excepting under emergency conditions, to the care of those of "Native" blood. Now with land settlements and monetary awards for past injustices due, people who 25 years ago felt insulted at being considered Native are boasting of their "Native" blood, even though their skins are as pale as an albino with vitiligo, and they sport such well known Native names as Svenson, O'Toole and Lifshutz. Money may not be everything, but what it will make people do is about that.

The Alaska Lumber & Pulp Mill is the basic industry of Sitka. It exhales polluting vapors from its great stacks and exercises thermal pollution on the previously limpid waters of Silver Bay, altering the water chemistry with its effluvia. The tragedy here is that if existing federal laws were enforced, none of this pollution, air, chemical, or thermal, would be necessary. The mill would still make money, although shareholders might lose a few cents a share over a period of years. Until the people demand it be stopped, the noisome vapors will continue to blow over the town and across the waters and heated waste chemicals will continue to pour into Silver Bay. Will we never learn?

At the present time the big question is whether another great mill is to be erected in the Juneau* or the Sitka area. The people of Juneau seemingly turned it down. The people of Sitka are undecided, but on the day I left it seemed as though those who wanted it there were going to prevail. If they do I hope that they will insist that the plans for the mill be scrutinized by agencies of the United States Public Health Service and the Alaska Department of Health & Welfare to make certain that there will be no air pollution, water pollution, or thermal pollution, and that if this cannot be guaranteed the erection of the mill will be prohibited.

However, even if the mill is erected and there is no pollution of air or water, the scarring of the countryside will continue, presenting the tourists, who also contribute to the Alaskan economy, unsightly scarred areas on the more accessible sides of the great mountains of southeastern Alaska. This process is euphemistically known as "harvesting" but what it really amounts to is cutting down the biggest, best, and most mature trees, so that they may be transformed, among other things, into tissue for blowing one end of the unpredictable human animal or wiping the other.

*Juneau "won"

RURAL MENTAL HEALTH IN ALASKA

By Carl D. Koutsky, M.D.

*Superintendent,
Alaska Psychiatric Institute, Anchorage*

Joseph D. Bloom, M.D.*

*formerly Chief Mental Health Unit,
Alaska Area Native Health Service, Anchorage,*

John P. Rollins, M.D.

*Chief Professional Services,
Alaska Psychiatric Institute, Anchorage*

Lucien J. Poussard, M.S.W.

*Area Social Work Branch,
Alaska Area Native Health Service, Anchorage*

Problems of delivery and organization of medical service in rural areas are confounding many of the western states in the "lower 48". In Alaska these problems are not only complicated because of the tremendous physical difficulties to be overcome, but are also compounded by multiple agencies, both state and federal, which co-exist as a result of the old Territorial Government being replaced by a new State Government in 1959. This shift of responsibility required giving up of traditionally accepted practices in Alaska and the establishment of new authority where old power situations used to exist. However, even as the State Government gained in resources in many areas, the Federal Government has increased expenditures in the state in other areas.

The overlap of jurisdictions is clearest in regard to the "native" population of the state. This group of some 50,000 Indians, Aleuts and Eskimos share some of the traditional rights granted by Congress to the Indians of the "lower 48 states". In addition to this, and unlike many other places in this country, the native population has been accorded full and equal rights as citizens of the State of Alaska. In short, the Native Alaskan who becomes psychiatrically ill, immediately is influenced by the Department of Health and Welfare of the State of Alaska through its Division of Public Welfare, Division of Mental Health and Division of Public Health, along with the Bureau of Indian Affairs of the U.S. Department of the Interior, and the Alaska Area Native Health Service of the U.S. Public Health Service. If this citizen happens to be a veteran or a woman married to one of the numerous retired service personnel living in Alaska, proper medical channels are further complicated by a network which now involves military hospitals and the Veterans Administration hospitals.

Briefly, at the time of statehood, Alaska assumed the responsibility of caring for its mentally ill and retarded citizens regardless of whether they were Native Alaskans who might be, in other situations, clients of the Bureau of Indian Affairs, or patients of the Alaska Area Native Health Service for all

other illnesses. Alaska, so far, has established two main institutions for the care and treatment of the mentally ill and retarded; the Alaska Psychiatric Institute, a 225 bed hospital located at Anchorage, the largest city of the state; and the Harborview Memorial Hospital, a new hospital for the retarded person with 150 beds, located in Valdez, a town of about 1,000 people, 300 miles from Anchorage.

There are also three regional state run clinics located in Juneau, Anchorage and Fairbanks, which are designed to provide mental health services directly and through consultation.

The Alaska Area Native Health Service maintains seven general hospitals within the state including a 300 bed medical center located in Anchorage, which serves as a referral center for the outlying or bush areas of the state, and is able to offer specialty medical services. There are six other general hospitals; a 160 bed hospital at Mt. Edgecumbe in southeastern Alaska; a 65 bed hospital at Bethel; a 55 bed hospital at Kotzebue; a 35 bed hospital at Kanakanak and Tanana; and a new 12 bed hospital at Barrow. Each of these hospitals is staffed and run by general medical officers who are expected to handle a complete range of general medical practice, including dealing with patients with acute and chronic psychiatric problems.

The Alaskan Native, that is the Eskimo, Indian or Aleut, is in a minority population-wise in the state, making up only about 1/3 to 1/5 of the population; however, they provide from thirty-five to fifty percent of the psychiatric institution's population on any given day. This disparity in percentage reflects the number of individuals requiring and needing psychiatric out-patient care in the rural or native areas. Therefore, casefinding in the State of Alaska is not a difficult problem. Transporting and seeing that the patient, once found, gets proper treatment is another question. In the past, before the establishment of the Alaska Psychiatric Institute and Harborview Memorial Hospital, patients found in the rural areas were committed and sent to a private mental hospital in Portland, Oregon, where the

*Present address, Langdon Psychiatric Clinic, Anchorage

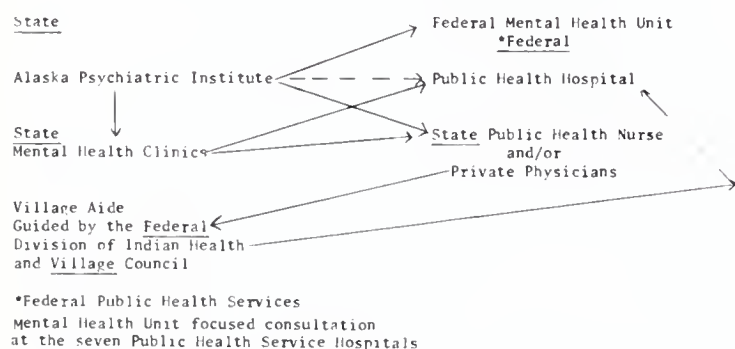
patient became disconnected for long periods from family and community.

It was difficult for the outside hospital to provide short-term care and return the patient home very rapidly. As a result of placing the institutions within the state, returning home takes less time and we now find that the communities, based on their previous experiences, are often ill prepared to accept back with their group the patients who used to go away for a "long time". One would think that casefinding channels and follow up channels would simply be reversible in efficiency once one area of flow is established; however, this is not true. "Out of sight, out of mind", is still a strong principle of human behavior, and in rural Alaska, where daily living pressures are so extreme, we believe it is even more true.

In Diagram I, we have attempted to picture the complications of the follow-up channels on a patient of native origin who might be returned to one of the villages in the Alaska bush country. (As someone once said about the Alaskan mosquito, "our problems could only be more numerous if they were smaller in size".)

DIAGRAM I

Follow-up of Discharged Patient



As you can see from Diagram I, a patient may be involved alternately, and at the same time, with various agencies, both federal and state in origin. This complicated communication system, in trying to carry out consultation in managing mental health and retardation problems, requires a good deal of personal understanding and communication between the personalities in the agencies. Formerly, contacts were accomplished through direct telephone communication with the outlying areas, but recently, since 1966, through the assistance of the Mental Health Unit of the Alaska Area Native Health Service hospitals, there is more constant communication with the problems in the various areas. This same unit also meets at the Alaska Psychiatric Institute at least one day a week for discussion of the follow-up care and further consultation in reference to the problems of the Alaskan Native, attempting to bridge the service gaps which exist between the state and federal institutions.

The Alaska Area Native Health Service Unit, consists of a psychiatrist, a psychiatric social worker, and a clinical psychologist. They utilize the general principles of consultation¹ focused mainly on the Public Health Service hospitals. However, they do intervene with direct service on occasions if it seems appropriate. Through consultation to the schools, training programs, as well as attempts to do research and studies on problems that are unique to each area, this unit has proven to be an effective weapon against unnecessary hospitalization and the complications that follow this practice in Alaska. In planning for service, the unit assumes that each institution, whether state or federal, has a place in its thinking and can be used for various situations, each to its fullest extent (while taking into account individual limitations). Our overall system works as follows: Patients from a rural village are initially brought to the attention of a village medical aide, who is in touch via radio schedule with a physician from the nearest Alaska Area Native Health Service Hospital. If the patient cannot be managed in the village, he is flown to the Service Unit hospital where he is evaluated by the general medical staff and by a medical social worker if one is available. At this point, the Mental Health Unit provides consultation through a regular visit to the Service Unit Hospital, or via phone contact in emergencies. If it is felt by the local physician in consultation with the Unit that a certain patient cannot be managed in the local hospital, they are referred to the regional state mental health clinic which transports the patient by plane into the city. In Fairbanks and Juneau, the patient is hospitalized at a non-Indian Health Community Hospital where the patient is seen by the clinic staff and a decision is made whether the patient can be treated at the community hospital on a brief basis, or is in need of treatment for a longer duration. If so, the patient is transferred to the Alaska Psychiatric Institute in Anchorage. Upon his return home to the village, the patient again becomes the responsibility of the Alaska Area Native Health Service Hospital for follow-up care. If the patient needs rehospitalization, the whole process is repeated.

We try to avoid a short-circuit from the village to the institute in Anchorage. This former practice was known as the "airplane cure" and was based on the idea of getting problem patients out of town as fast as possible. By setting up a hierarchical referral system, we hope to avoid unnecessary movement of patients and unnecessary hospitalizations. The Alaska Native Area Health Unit also becomes an important link in formulating a follow-up system. Prior to this cooperative state-federal venture, it was not unusual for a patient to be sent home from the state hospital on large doses of medication for extended periods of time without available follow-up. Health professionals visiting patients in the villages could find three years supply of Thorazine on the

shelf above the patients bed with not one pill taken since returning home. The Mental Health Unit keeps up-to-date records on patients who need aftercare, and sees that physicians making village visits include them in their rounds. By opening channels of communication in an organized way, we provide several possible intervention points to avoid unnecessary movement, and points for special consultation.

The Mental Health Unit of the Alaska Area Native Health Service is responsible for consultation work with its own general hospitals in all areas of mental health consultation. The State of Alaska is responsible for strengthening and consulting with its regional clinics and within its state hospitals. Recently, the above system was written out in a new memorandum of agreement between the Alaska Native Area Health Service and the Alaska State Department of Health and Welfare at the Division of Mental Health. This agreement specifically defines the responsibility of

each of the agreeing agencies for patient treatment, spelling out individual and overlapping responsibilities.

Summary and Conclusions. It is entirely possible, in spite of the numerous problems presented by multiple federal and state operated agencies working on the same problem, in spite of tremendous distances and variations of the climate and problems in the State of Alaska, to establish a system of practice that can be effective in improving the mental health of the Alaskan citizen. By developing and expanding cross linkages between health systems, in this case, state and federal, improvements can be made in mental health care without dramatic increases in expenditures.

References:

1. Caplan, G., 1964. PRINCIPLES OF PREVENTIVE PSYCHIATRY. Basic Books, Inc., New York, London

Comments on Rural Mental Health

*By J. Ray Langdon, M.D.
Anchorage*

In Alaska Medicine, Volume I No. 1, a brief report on the status of Alaskan psychiatry at that time was made. Since then, although the Alaska Psychiatric Institute and Valdez Hospitals have been opened, the largest advances in psychiatry have been made in the private sector, and this almost exclusively in the Anchorage area - there was no full time private psychiatrist in Alaska in 1959.

Therefore it is of interest to note the more cooperative approach between state and federal persons as described by Doctors Koutsky, Bloom, et al. Unfortunately the best intentions do not all get followed through. For instance, the statement that the state operates clinics in Anchorage, Fairbanks, and Juneau is, and always has been, a sometime thing, and the effectiveness of the Alaska Native Health

Service consultative program varies markedly with the interest and experience of the mental health unit personnel. The idea is good, and undoubtedly it will eventually develop into a working program, as it seems the best possible for bush (rather than rural) Alaska for many years to come.

It is important that the medical profession understand some of the bush problems described in this article so that we may make stronger efforts in the more urban areas to develop more community backed and private resources in the mental health fields. The more we can handle this, the more we can free the scanty state and federal personnel for bush operations. It is well to note cooperation across agency boundaries in any medical or health field, so whatever has been accomplished by the program described is to be commended.

1970 CONVENTION

ALASKA STATE MEDICAL ASSOCIATION

June 3-5, 1970 Kenai, Alaska

The Kenai Peninsula Medical Society with the help of Keith Brownsberger, M.D. Anchorage, Co-Chairman of ASMA's Program Committee is organizing this year's convention. This year's convention is structured differently than any in the past. The scientific portion of the meeting will be three 4-hour courses in the following subjects:

1. June 3, 1970 - Arterial Hypertension
2. June 4, 1970 - Bleeding Disorders
3. June 5, 1970 - The use of Estrogen and Progesterone in the premenopausal and post-menopausal female

Visiting consultants for the scientific sessions are listed in the interim program.

Informality and relaxation are being stressed as the theme of this year's convention.

On June 2nd, a beach party is planned for all early arrivals. The party will be at the Kenai Beach with wild-game and sea food the specialty of the menu. Draft beer and soda pop will be available for those who wish refreshments. All physicians and their families, exhibitors, nurses! - Everybody is invited.

It is hoped that each of the banquets planned for the evenings of the convention will maintain an informal and relaxed atmosphere. The ASMA banquet on Friday June 5th will be a no-ties affair with smorgasbord dinner, and dancing afterwards.

All planning to attend the convention are urged to acquire hotel accommodations as soon as possible. Motels and their rates are as follows:

KATMAI MOTEL	
Box 2840	Rates:
Kenai, Alaska 99611	Single 16.00 4 persons 23.00
	Double 19.00 5 persons 26.00
Thirty Rooms available	3 persons 21.00 6 persons 30.00

Restaurant and bar available in motel.

ROYAL REDOUBT MOTOR MOTEL	
Box 460	Rates:
Kenai, Alaska 99611	Singles 16.00, 17.00 or 18.00
	Double 18.00, 19.00 or 20.00
Sixty Rooms available	3 persons 24.00 or 26.00
	4 persons 24.00 or 26.00
	Roll-a-way \$4.00 per bed.

Restaurant, bar and barber shop available in motel

INTERNATIONAL HOTEL	
Box 910	Rates:
Soldotna, Alaska 99669	Single 18.00
	Double 24.50
	Roll-a-way \$4.00 per bed
Thirteen Rooms available	Restaurant and bar available in motel.

THE SPURR MOTEL	
Box 308	Rates:
Kenai, Alaska 99611	Single 8.00 to 10.00
	Double 9.00 to 13.00
18 Rooms available	Roll-a-way available at \$4.00 per bed

Restaurant available one building from motel.

HARBORVIEW MOTEL	
Box 179	Rates
Kenai, Alaska 99611	Single 11.00
	Double 18.00
15 Rooms available	Roll-a-ways are available

Restaurant available in motel

THE PLACE MOTEL	
Route 1	Rates:
Kenai, Alaska 99611	Single 12.00
(Located 5 miles north of Kenai)	Double 14.00
6 Rooms available	Roll-a-ways are not available

Restaurant available

Airline schedules during the time of the convention are as of yet unconfirmed. However, a similar schedule to that in effect at present is anticipated:

NORTH AIR COMMUTER AIRLINE
Daily except Sunday

Anchorage Departures	Kenai Departures
101 5:15 A.M. Monday only	102 6:00 A.M.
103 7:00 A.M.	104 7:40 A.M.
105 9:00 A.M.	106 10:00 A.M.
107 11:00 A.M.	108 12:00 P.M.
109 1:00 P.M.	110 2:00 P.M.
111 3:00 P.M.	112 4:00 P.M.
113 5:00 P.M.	114 6:00 P.M.
115 7:00 P.M.	116 8:00 P.M.
117 9:00 P.M.	118 10:00 P.M.
119 11:00 P.M.	120 11:45 P.M.

WESTERN AIRLINES

Anchorage Departures	Kenai Departures
8:00 A.M. daily except Sat. & Sun.	8:35 A.M. daily except Sat. & Sun.
9:30 A.M. daily	3:35 P.M. daily
4:30 P.M. daily except Mon. & Tues.	5:30 P.M. daily except Mon. & Tues.
6:25 P.M. daily	

WIEN CONSOLIDATED AIRLINES has applied to C.A.B. to take over the Kenai-Kodiak-Anchorage air service and may be supplying service to Kenai by convention time.

BRING YOUR FAMILY, CAMPER, FISHING EQUIPMENT, ETC. AND JOIN YOUR COLLEAGUES IN KENAI AS A BEGINNING TO YOUR SUMMER 1970.

Recreational activities will be available for all convention participants and their families.

The Alaska State Medical Assistance Association will maintain information booths at the Kenai Airport and the Convention Center. They will have available information and make arrangements for recreational activities such as canoe trips, lake fishing, clam digging (if the tides are right) hiking, tours of oil and gas industries, and deep sea fishing in Homer. The Medical Assistants will also direct convention participants to available transportation between the convention hall and the airport.

ALASKA STATE MEDICAL ASSOCIATION

1970 Convention Program
(Interim)

Kenai Central High School
Kenai

June 3 - 5

TUESDAY, JUNE 2, 1970

1: 00 P.M. Meeting of Council, Alaska State
Medical Association
Conference Room
Katmai Hotel
Kenai

6: 00 P.M. Beach Party, Kenai City Beach
Wild-game dinner: moose, salmon,
clams and etc.
ALL ARE INVITED

WEDNESDAY, JUNE 3, 1970

8: 00 A.M. Registration

8: 30 A.M. Arterial Hypertension lecture

Keith Brownsberger, M.D. - Moderator

Richard Paton, M.D.
Department of Medicine
The Mason Clinic
1118 Ninth Avenue
Seattle, Washington

Warren Chapman, M.D.
Assoc. Professor
Dept. of Urology
University of Washington
School of Medicine
Seattle, Washington

10: 00 A.M. Visit Exhibits

10: 45 A.M. Continued Arterial Hypertension Lecture

Keith Brownsberger, M.D. - Moderator

Richard Paton, M.D.

Warren Chapman, M.D.

12: 00 P.M. Women's Auxiliary Business meeting
Paul Isaak, M.D.'s Home
Soldotna, Alaska

12: 00 P.M. Lunch

1: 00 P.M. Case Presentations and Discussion
of Arterial Hypertension

Keith Brownsberger, M.D. - Moderator

Richard Paton, M.D.

Warren Chapman, M.D.

2: 30 P.M. Visit Exhibits

3: 15 P.M. House of Delegates meeting

6: 30 P.M. No-Host Cocktail Hour
Recreation Hall
Catholic Church
Kenai

7: 30 P.M. No-host Banquet
Alaska Academy of General Practice
Recreation Hall
Catholic Church
Kenai

THURSDAY, JUNE 4, 1970

8: 00 A.M. Registration

8: 30 A.M. Bleeding Disorders lecture

Winthrop Fish, M.D. - Moderator

Henry Kingdon, M.D.
University of Chicago
School of Medicine - Division
of Hematology
950 E. 59th St.
Chicago, Illinois 60637

10: 00 A.M. Visit Exhibits

10: 45 A.M. Bleeding Disorders lecture

Winthrop Fish, M.D. - Moderator

Henry Kingdon, M.D.

12: 00 P.M. - Luncheon
Alaska Medical Political
Action Committee
Annual Board Meeting
Kenai High School

1: 00 P.M. - Bleeding Disorders,
Case presentations

Winthrop Fish, M.D. - Moderator

Henry Kingdon, M.D.

2: 30 P.M. - Visit Exhibits

3: 15 P.M. House of Delegates Meeting

6: 30 P.M. No-Host Cocktail Hour
Location to be announced
in final program

7: 30 P.M. Alaska Heart Association
Annual Banquet
Location to be announced
in final program

FRIDAY, JUNE 5, 1970

8: 00 A.M. - Registration

8: 30 A.M. - The use of estrogen and
progesteron in premeno-
pausal and postmenopausal
females (lecture)

L. David Ekvall, M.D. - Moderator

Kermit E. Krantz, M.D.
Chief, OB-GYN
University of Kansas
Medical Center
39th and Rainbow
Kansas City, Kansas

10: 00 A.M. - Visit Exhibits

10: 45 A.M. - The Use of estrogen and
progesteron in premeno-
pausal and psotmenopausal
females lecture continued

L. David Ekvall, M.D. - Moderator

Kermit E. Krantz, M.D.

12: 00 P.M. - Luncheon
Medicine and Religion
Rev. Paul McCleave, L.L.D.
Dir. Dept. of Medicine and Religion
American Medical Association
Kenai Central High School

1: 00 P.M. - Case presentation and discussion
of the use of estrogen and progesteron
in the premenopausal and
postmenopausal female.

L. David Ekvall, M.D. - Moderator

Kermit E. Krantz, M.D.

2: 30 P.M. - Visit Exhibits

3: 15 P.M. House of Delegates meeting

6: 30 P.M. Cocktail Party
Hosted by the Alaska State
Medical Association
Recreational Hall
Catholic Church
Kenai

7: 30 P.M. Informal Alaska State Medical
Association Smorgasbord
Recreational Hall
Catholic Church
Kenai

8: 30 P.M. Awards

9: 00 P.M. - Dancing

SATURDAY, JUNE 6, 1970

10: 00 A.M. - Meeting of the Council,
Alaska State Medical Association
Conference Room
Katmai Motel
Kenai

MUKTUK MORSELS

NOME

If the Nome Hospital doesn't receive supplementary USPHS or State funds within the next 30 days, the hospital will be closed down. The clinic would remain open, being supported by funds from private patients and USPHS money. A request for a grant from the State of Alaska is being made and the City of Nome should know before the end of March whether it will be received. Otherwise the hospital will close on March 31, 1970.

FAIRBANKS

Dr. John T. Adams resigned from General Practice at the Fairbanks Clinic and left the state.

Dr. James Lundquist has been named to the State Board of Medical Examiners, subject to legislative approval. He replaces Dr. William Bugh who has moved to Anchorage.

Construction Bids for the new Fairbanks Community Hospital will be opened in March, and it is hoped that they will be within budgetary reach without further fund-raising activities. Fairbanks continues to have growing pains, and both major medical clinics have been broken into several times by burglars.

GLENNALLEN

Dr. Chet Schneider writes from New Jersey (101 Sixth Avenue, Hawthorne, N. J. 07506) that he expects to enter a three year psychiatry residency at Temple University in Philadelphia this July.

HOMER

Dr. Paul Eneboe has adopted a new daughter to play with his two sons.

KODIAK

Dr. Bob Johnson plans to take a one year, specially arranged residency in Family Practice in Salt Lake City and Seattle. Dr. Rud Wasson of Minnesota will take over his practice.

The Sisters in charge of the new Kodiak Community Hospital have announced that they have been operating without a deficit since their opening in May, for which they deserve congratulations!

The new Kodiak Mental Health Center will open early in March. One of only two within Alaska, the Center is funded by the Federal Mental Health Center Act (for operating funds) and also has State and Borough financial support. The total grant for the first year in operation is about \$97,000. Dr. Johnson and others compiled the necessary reams of infor-

mation and completed endless forms to make this wish come true. The Center will be directed by Dr. Ernest Stickle, a psychologist with his Ph.D. in Psychology and Mental Health, most recently in practice in Edmonton, Alberta. It will provide a transitional care facility between mental hospital care and a return to full community life. The five requirements to be met for funding of such a Center are (1) provision of total in-hospital care facilities, (2) provision of partial in-hospital care facilities, (3) provision of out-patient and rehabilitative care facilities, (4) availability of services on a 24 hour-a-day basis, and (5) a program of community education for better mental health.

ANCHORAGE

Dr. Jon Aase has joined the Anchorage Pediatric Group in Pediatric practice while continuing part-time with the R.M.P. (Regional Medical Program).

Dr. George A. Lyon, a Board Certified Neurosurgeon from Pennsylvania, has joined the Alaska Clinic in specialty practice, doubling the neurosurgeon population of Alaska.

Dr. Richard Curtis had a new son.

Dr. Charles F. St. John has been reappointed to State Board of Medical Examiners pending legislative approval.

The Alaska Medical Library has been funded for another and probably the last year by R.M.P. It is hoped that the state will take over support of this fine facility when R.M.P. funds run out.

Dr. William Larsen, a Board Qualified Pediatrician previously stationed here at the U.S.A.F. Elmendorf Hospital, will join the Alaska Clinic in May.

The Anchorage Community Hospital expects to complete interior work on the fourth floor by June 1970, adding 40-45 sorely needed beds to their current 45 bed capacity.

Dr. James Coin is planning to take a one year Cardiovascular Radiology Fellowship at the University of Oregon Medical School, beginning in July.

JUNEAU

The Juneau Medical Society is already working on plans for the 1971 annual ASMA meeting here. Dr. Robert Cavitt will organize this meeting. It is hoped that Alaskan physicians attending this meeting will be able to tour the new Bartlett Memorial Hospital, now scheduled for completion in May 1971.

SITKA

Dr. Philip H. Moore, 65 will retire as of March 1st. A gala party of 27 Southeastern physicians and wives is scheduled to blast him off into his new

career. In 1947 Dr. Moore resigned from the faculty of the University of Oregon and opened his Territory-wide orthopedic practice, based in Sitka. He was President of the Territorial Medical Society in 1953. Among his many "firsts", Dr. Moore established and ran the Indian Health Service Orthopedic Program. We expect much more material on Dr. Moore for the next issue. In the meanwhile we understand that he and Mrs. Moore will go to Vancouver to pick up the hull of their new troller and from there on to Hoquiam, Washington, to oversee completion of its construction, before returning to Southeastern Alaska to do commercial fishing. His retirement leaves Southeastern Alaska without an orthopedic surgeon.

Dr. Patrick A. Lynch of Yakima and Dr. John Loop of Seattle plan to alternate in providing monthly radiologic consultative services at the Sitka Community Hospital.

KETCHIKAN

The new Mental Health Center will be located in the lower floor of the Public Health Center Building, now being remodeled with city funds.

Dr. Audrey Mertz a Board Certified Psychiatrist, formerly executive officer for Mental Health in Hawaii, will direct the Center. Her staff will include a psychologist, psychiatric social worker, and nurse. This Center, a significant advance in mental health care, is also funded by a federal operating grant for its first year.

WRANGELL

USPHS physicians on their two week annual leaves continue to staff the new hospital here, pending enlistment of a permanent community physician. The City of Wrangell is funding this temporary program.

WASHINGTON, D.C.

Senate Bill S.3255 "A Bill restricting smoking aboard aircraft" was introduced by Senator Hatfield of Oregon on behalf of two citizen groups--Action on Smoking and Health (ASH) and Citizens to Restrict Airline Smoking Hazards (CRASH)-- we wish them well.

BOOKS RECEIVED FOR REVIEW

Glossary of Hospital Terms, Sara McKinney, Principal Investigator, 95pp, American Association of Medical Record Librarians, Chicago, 1969.

I'm Done Crying, Louanne Ferris as told to Beth Day, 275 pp., \$5.95, J. B. Lippincott Company, Philadelphia, 1969.

Viral Infections of the Human Fetus, By Gilles R. G. Momil, M.D., 164 pp., illus., The Macmillan Company, Toronto, 1969.

Personnel Administration and Labor Relations in Health Care Facilities, by James O. Hepner, Ph.D., John M. Boyer, M.A. and Carl L. Westerhaus, M.S., 391 pp., illus., The C. V. Mosby Company, St. Louis, 1969, \$15.00.

Fundamentals of Inhalation Therapy, by Donald F. Egan, M.D., 473 pp., illus., \$11.00, the C. V. Mosby Company, St. Louis, 1969.

Medical Neurology, by John Gilroy, M.D., and John S. Meyer, M.D., 720 pp., illus., The Macmillan Company, Toronto, 1969.

Human Ecology and Public Health, Fourth Edition, Edited by Edwin D. Kilbourne, M.D. and Wilson G. Smillie, M.D., 462 pp., illus., \$11.95, The Macmillan Company, New York, 1969.

Textbook of Pediatrics by Waldo E. Nelson, M.D., Victor C. Vaughan III, M.D., and R. James McKay, M.D., Ninth Edition, 1590 pp., illus., \$21.50, W. B. Saunders Company, Philadelphia, 1969.

Current Concepts in Ophthalmology, by Bernard Becker, M.D. and Ronald M. Burde, M.D., 267 pp., illus., \$21.00, the C. V. Mosby Company, St. Louis, 1969.

Handbook of Ocular Therapeutics and Pharmacology, Third Edition, by Philip P. Ellis, M.D. and Donn L. Smith, M.D., Ph.D., 251 pp., \$10.75, the C. V. Mosby Company, St. Louis, 1969.

Atlas of Human Electron Microscopy, by Ruben P. Laguens and Cesar L. A. Gomez Dumm, 180 pp. illus., \$20.50, the C.V. Mosby Company, St. Louis, 1969.

Techniques in Clinical Physiology, A survey of Measurements in Anesthesiology, Edited by J. Weldon Bellville, M.D. and Charles S. Weaver, Ph.D., 532 pp., illus., The Macmillan Company, New York, 1969.

Herm's Medical Entomology, Sixth Edition, by Maurice T. James, Ph.D., and Robert F. Harwood, Ph.D., 484 pp., illus., \$15.00, The Macmillan Company, New York, 1969.

Review of Biochemistry, by Nathan H. Sloane, Ph.D. and J. Lyndal York, Ph.D., 278 pp. illus., The Macmillan Company, Toronto, 1969.

Bedside Diagnostic Examination, Second Edition, by Elmer L. DeGowin, M.D. and Richard L. DeGowin, M.D., 923 pp., illus., The Macmillan Company, New York, 1969.

A Synopsis of Contemporary Psychiatry, Fourth Edition, by George A. Ulett, Ph.D., M.D., and D. Wells Goodrich, M.D., 340 pp., illus., \$9.50, The C. V. Mosby Company, St. Louis, 1969.

BOOK REVIEWS

Chest Tubes and Chest Bottles by Arndt von Hippel, M.D., F.A.C.S., F.I.C.S., 96 pp., illus., \$7.00, Charles C. Thomas, Publisher, Springfield, Illinois, 1970.

Many customary medical and surgical techniques are irrational, based largely on tradition, and surviving only because they have never been subjected to scrutiny. Useless drugs still dilute the pharmacopoeias, bored aides still count "respirations" three times a day, and surgeons still daub the appendiceal stump with phenol and alcohol. In the medical educational process a "simple" technique is usually relegated to the house staff. Last year's intern teaches this year's intern how to operate on hemorrhoids and hernias, and the same old errors are perpetuated from generation to generation.

An important example of such divorce of surgical technique from both rational analysis and valid teaching has been the chest tube. Surgeons — especially the older operator and the occasional operator — go on using three bottle chest tube suction, clamping tubes, worrying about open chest wounds and not worrying about tension pneumothorax. Now, at last, Dr. Arndt von Hippel in **Chest Tubes and Chest Bottles** has brought the chest tube and the medieval practices surrounding it out of its educational limbo. His neat little monograph is brief enough to be read in an evening and simple enough to be understood by general surgeons. His argument and illustrations should be compelling to a rigorous academician, and the book is a delight to read. The serious exposition is clothed in humor by a series of medical vignettes, and his points are all the more memorable for it. Who will soon forget the well-endowed lady with a chest tube behind a breast?

Dr. von Hippel first reviews the essentials of pulmonary physiology, then shows the physiologic "why" and "how" for using chest tubes in various conditions including post-operative complications, spontaneous pneumothorax, subcutaneous emphysema, chest trauma, and pericardial tamponade.

Chest Tubes and Chest Bottles is highly recommended to anyone, surgeon or physician, who cares for patients who may require chest tubes, and especially to those unfortunate surgeons who once upon a time learned to use chest tubes from the house staff.

F. J. Hillman, M.D.

"At Your Own Risk: The Case Against Chiropractic" is the title of the book authored by Ralph Lee Smith, published September 11 by Trident Press.

It is of particular value to the medical profession in that the debunking of chiropractic as a "science" is a factual, fully documented presentation of the history, philosophy and present-day practices of a profession that has confused the public by its false aura of science and its achievement of state licensure.

The author, an accomplished lay writer highly respected for his objectivity, reveals chilling facts: that a number of practicing chiropractors received their degrees by mail order; that apart from their chiropractic training, many chiropractors have only a high school education, and that no medical degree (M.D.) is necessary or even recommended as a prerequisite to engage in the practice of chiropractic.

The chairman of the AMA Committee on Quackery, Joseph A. Sabatier, Jr., M.D., in his review of the book, said: "This volume should be read by every physician. Also, any person who has an interest or commitment in health care afforded his fellow man will be better equipped by virtue of the exposure of this unscientific cult as a significant health hazard. The book should be required reading for every person in the education field concerned with career counseling. All trainees in the health care field including every technical and professional branch and level of instruction should profit by study of the volume."

He adds that this book provides documented evidence upon which the scientific community, the general public — and most important of all — legislative bodies can reach a proper conclusion. In quoting the author, Doctor Sabatier wrote in his review: "Whatever the difficulties involved, state legislatures can no longer ignore their public

obligation to face the issues and the facts, to acknowledge their error, and to set things straight. First of all, legislation in scientific fields that pays no attention to science is bad law, and shows a deep failure on the part of legislators to fulfill their responsibility to their constituents. Second, in this country at this time, anyone claiming to have a valid treatment for human illness should be required to show its validity before the bar of science before receiving a state license to use it on the sick. Third, the correct way to deal with treatment methods that cannot or will not submit to the judgment of scientific research is not to limit and oversee them, but to prohibit them. By abandoning all these precepts in the face of political pressures created by chiropractors, state legislatures have created a state-supported medical superstition."

Smith proposes two steps that he says must be taken by the legislature in the 48 states that license chiropractors:

"The first step, and one that must be taken immediately, is to prohibit further use of X ray by chiropractors . . . and the next step is for each state to create an orderly program for withdrawing chiropractic licenses."

Doctor Sabatier advised that any scientifically oriented person who reads this book and who does not recognize his own obligation in exposing to the public the dangers of this specific health hazard would do well to re-examine his motives.

To help the medical profession accelerate and implement its efforts to further its program of anti-chiropractic education, the AMA Department of Investigation has purchased a considerable quantity of "At Your Own Risk" and offers them at a discount price to medical societies and to individual physicians. In August, the Department sent 100 paperback versions and one hard-cover book to each state medical society, and one paperback to each county medical society.

In a letter to each society, H. Doyl Taylor, director of the department, announced that although the hard-covers are priced at \$4.95, the special reduced cost for 11 or more is only \$2.50 each.

Similarly, the individual price for the paperbacks is 95 cents, but the AMA is making a special offer of 50 cents each for orders of 11 or more. The books, in both hard-cover and paperback, are available from the AMA Order Department 535 North Dearborn Street, Chicago, Ill. 60610.

Mr. Taylor recommends a wide distribution of this book throughout both the profession and the community because "we believe this independently written, privately published book will be another major tool that can be used in medicine's continuing attempts to inform the public, in general, and the legislators, in particular, about the evils of chiropractic."

Prepared by Norman H. Budde
Program Services Department
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

The Emergence of Modern Nursing, Second Edition, by Vern L. and Bonnie Bollough, 261 pp., illus., \$6.95, The Macmillan Company, London, 1969.

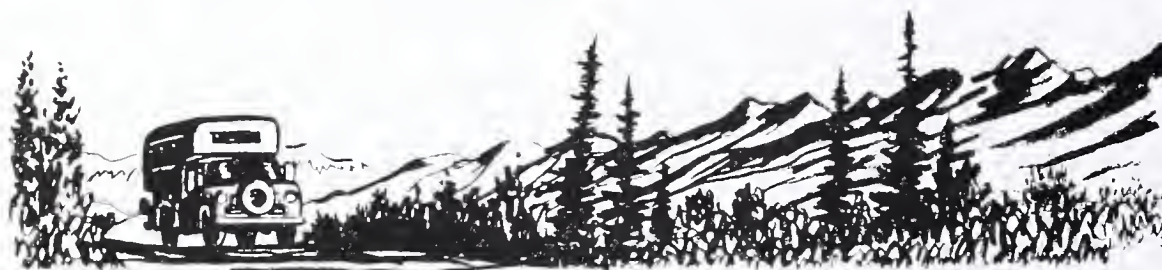
Nursing is older than civilization, for whenever and wherever man first began to care for the injured, the sick, and the wounded, nursing began. Among the early Egyptians taking the pulses was common practice, ancient Greek medicine came much closer to modern medicine than any other historic form, and the Greeks were the first group to become conscious of the need for trained nurses. In the second century, A.D., medicine became a science under Galen, the Roman Practitioner, and beginning in the 4th century, with the closing of the pagan temples of Asclepias the need for an institution to care for the poor was evident and the first hospital appeared. During the middle ages the monks and nuns, who were better educated than the general population at the time, were given more control of the sick, and a concept of devotion to the sick evolved that was an important step forward in nursing. Because of Florence

Nightingale and her nurses, nursing emerged during the Crimean War as a valuable and honorable profession. By 1870 the foundation of modern nursing had been laid, and by 1910 there were 1000 Nightingale training schools.

The development of the modern nurse has been closely allied with the rising status of women. Nursing, however, still has to face many areas of difficulties, it is still a changing profession, and it

is not clear just what direction nursing will take. In Anchorage we are fortunate that there is not the shortage of nurses that exists Outside. With the closing of many diploma schools, however, it is difficult to say what the future will bring. Part of the answer depends on the future development of medicine, and part depends on the nurse herself. Most nurses will find this book of some interest.

Review by Pat Kruse, R.N.



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ALASKA MEDICINE



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About the Cover

The U.S. Fish and Wildlife Service prohibits use of airplanes in this area, the Kenai National Moose Range. Horse hunters, like Larry Clendenen, of Anchor Point, shown here, and foot hunters only are allowed.

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Arndt von Hippel M.D.

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LETTERS TO THE EDITOR

The following letter of general interest was received by some of Dr. Phillips' Sitka friends about four months after he began his new teaching post in New York.

Dear Friends,

When I came to Rochester I felt that towns such as Sitka were being left out of a lot of medical progress which is occurring today. I came to the Family Medicine Program here specifically as one of the faculty who is concerned with medicine in rural, isolated, and small town areas. I still am this person, and I still am concerned with producing medical personnel for such areas. However, my perceptions of the problems facing Medicine have been changing rapidly. Originally I felt that we needed to move more of the high powered medical personnel (M.D., R.N. and others) out of the cities into the rural towns to solve some of the problems. I have found, however, what I should have known all along. There really is not a great pool of personnel any "higher powered" in the city than in Sitka. In other words, the staff of the Sitka Hospital and the Sitka medical community could hold its own in comparison with the city hospitals in which I work.

In fact, the main goal (as I see it now) of the Family Medicine Program in Rochester as well as at other universities is to instill a little of what Sitka has into medical education and into the city medical environment. What I mean can best be shown by the following listing:

1.) Despite the many differences of opinion and different ways of doing things, everyone in Sitka is basically on the same team. This is not always the case in the city where each professional group and each division of a hospital has its own little circle of power.

2.) Laboratory - Laboratory results in Sitka are generally more accurate, returned faster, and more pertinent to the care of the patient than I have encountered in the city. The reasons are rather obvious when you look for them. The lab technicians in the city are specialized, rarely see the patient, rarely see the doctor, and find it very hard to get much personal satisfaction from their work or see how it relates to any ultimate goal. This, of course, is not the case in Sitka.

3.) X-Ray - The same comments pertain as to Lab. The x-ray technician is a minor functionary who works under the direction of a radiologist who has sometimes (not always) lost the ability to communicate with both the patient and the referring physician. Consequently, the technician cannot contribute to the patient's care nearly as effectively as can Bob in Sitka.

4.) Nursing - Hospital nurses in the city have retained a lot more of what I'm talking about but still have their problems. Their problems may well be the responsibility of the physicians with whom they must work. One rarely reads a nurses' note in a chart, so nurses stop writing anything worthwhile. Everyone is so used to a rigid schedule of rounds and a hierarchy of residents and interns that the patient is often left with no one person taking any responsibility for his observation and care.

5.) Ancillary personnel such as those in the kitchen, admitting office, medical records, building maintenance, etc. have all the same problems. They have very little contact with the recipient of their services (the patient) and therefore either lose interest or can't see the goals of their work.

The purpose of Family Medicine as a department of a hospital (or medical school) is to focus on training "personal", or "primary" physicians and the ancillary personnel to assist them in the delivery of health care to families. The attitudes, talents, and techniques which these people will need are those which you in Sitka (from maintenance staff to hospital board) already possess and which we all take for granted. Our problem now is to get these talents and attitudes into the system of medical care which is necessitated by our huge crowded populations.

All of this adds up to a very sincere thank you and pat on the back as my Christmas greeting to you. I have heard that the Sitka

Hospital lost its accredited status this year, and I presume this came as a discouraging event to many of you. Forget it! You're maintaining as good or better medical care as any accredited hospital in the country. Your attention to detail, observation of patients, medical records, laboratory and x-ray services, and general concern with serving the patient are worthy of the highest accreditation. The food is probably even better than that. The good minds studying just what adequate health care means realize with you that our present standards of evaluation and accreditation fall far short of their goal.

We miss Sitka and certainly hope to keep in touch with all of you. The Sentinel comes each week and is read from cover to cover. Personal notes would be welcome as well. I have just had a rather unusual week in which I had in the hospital a patient who was also a patient of mine in Sitka and now lives near Rochester. We reminisced at great length and have developed quite an interest in Sitka among the hospital staff on her floor.

With sincere good wishes for a Happy New Year;

Ted Phillips, M.D.
Univ. of Rochester School
of Medicine and Highland Hospital
Rochester, New York

Dear Sir,

As a termination to my fourth year of medical studies at the University of Washington in Seattle I completed a two week elective as a family practice extern in Ketchikan, Alaska. I write to you now to share the aspects of this externship which I felt were most valuable to a person at my stage of training and hopefully to encourage other local Alaskan medical societies to establish similar externships. This program was organized in conjunction with the Ketchikan medical society by Dr. W. O. Robertson, Associate Dean of the University of Washington School of Medicine. My fare was paid by the Regional Medical Program and I stayed in a room at the Ketchikan General Hospital.

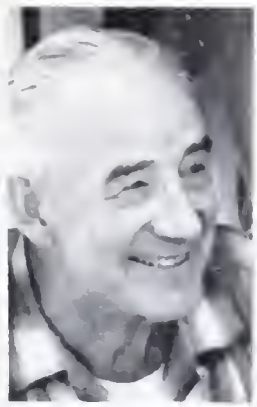
An important perspective I gained in Ketchikan was a deep respect for the problems encountered in community practice. It seems that my medical school does not do a good job of giving students an appreciation of the nature of "primary medical care". I must confess that I tended to think of the "local M.D." as a less than astute physician who "dumped" patients into the University system. My experience in Ketchikan showed me how wrong my preconceptions were. This picture of the community physician held by the student and junior housestaff hinders effective communication between the University and the referring physician. Perhaps by exposing more students to medical experiences away from the University one might hope to impress upon them the necessity for sending punctual and useful follow-up reports when they come to have ultimate responsibilities for patient care.

The externship in Ketchikan served to introduce me to office practice. Needless to say I was amazed at the amount of time spent filling out forms and answering the telephone. I also became aware of the need to consider the expense to the patient when one orders laboratory and radiological examinations in an office situation.

I must emphasize, however, that the most valuable learning aspect was the active part that I was able to take in the care of patients both in the office and in the hospital. I worked up patients in the emergency room and in the private offices. With supervision I was allowed to write orders on hospitalized patients. The responsibility in this situation seemed qualitatively different from that tendered to the medical student in the University Hospital. I felt that my opinion really counted. This feeling of equality with a practicing physician is the singular contribution that a community practice externship can offer and indeed makes it an experience that no student should miss.

Sincerely yours,

Lee G Michels, M.D.
Intern, Veteran's Administration Center
Los Angeles, California



DR. MOORE BEGINS RETIREMENT AFTER 23 YEARS IN SITKA

By Sandy Poulson

The following article is reprinted from the Daily Sitka Sentinel by permission.

An important chapter in the history of Sitka and Alaska ends today.

Dr. Philip H. Moore, an internationally known orthopedic surgeon, officially winds up his active career today, almost exactly 23 years from the date he arrived at Mt. Edgecumbe to establish an orthopedic program for the territory.

After he made a success of the program, he went into private practice in Sitka, drawing patients — and other doctors — from around the world to this small community.

During these past few days, his many friends and co-workers have honored him with tributes and gifts. At a dinner Wednesday night for example, a group of more than 80 gathered at the Channel Club in his honor.

Dr. George Longenbaugh, who's been in practice with Dr. Moore at Moore Clinic the past three years, was emcee, and the program was a series of spontaneous speeches of praise and affection from the crowd.

Dr. Longenbaugh presented Dr. Moore and Mrs. Moore with a gift from the hospital staff for the Moore's boat they plan to build in Seattle, and Mayor Les Shepard presented Dr. Moore with a resolution the city council passed in the doctor's honor for his service to the community.

Equipped with "a mind like a sponge", and Irish blood, Dr. Moore has had such a full career "I'm amazed at how much has happened to me."

Events began Feb. 28, 1904, in Paul City, Washington, where Dr. Moore was born into a family of three sisters, a rancher father and a mother "who had push."

Dr. Moore was the third generation of a family that settled in Snoqualamie Valley. His grandparents were the first white couple married in the valley, and his father's ranch was on a patent signed by President Garfield.

Dr. Moore attended Paul City High, won the state mathematics competition and earned the valedictorian title and other honors, all the while working on the ranch and doing lumber work. But he still had time to wander the countryside with his dog "Mike".

He'd be gone as long as three weeks at a time,

living off the land, and once his mother found him after he'd spent the night in a burned out log. When she spied him, the next day, napping on the ground covered with black soot "she burst into tears," Dr. Moore said, laughing.

As soon as he was graduated from high school in 1922, Dr. Moore joined the U.S. Marines and "had a wonderful time."

He stacked up some more honors; he was a member of the Camp Prairie, Ohio, Rifle team that won the national championship.

He also made it to private first class for awhile "but then I got into a fight and I came out as a private."

After the marines in 1925 he entered the University of Washington. He worked his way through school as a timber high climber and, one summer, as a cook on a cannery tender that included Sitka on its stops.

In 1929 he was graduated from the University of Washington, with high grades, as an electrical engineer. But that year an electrical engineer "was lucky if he could get a job reading meters."

So he decided to go back to school. He'd taken a course in anatomy "just for fun" and had liked it so well he decided medicine was for him.

In 1929 he entered the University of Oregon medical school in Portland, once again working his way through, this time by tutoring, research "or any other way I could earn a nickel."

Primarily because of that research, he took his masters degree first in pathology and physiology before getting his MD degree in 1934. He won the Henry Waldo Cole prize for original research (on cancer) and was elected a member of Sigma Xi, honorary research society. He was also a member of Alpha Omega Alpha, graduating in the top 2 per cent of his class.

Dr. Thomas Joyce, professor of surgery at the university, took the younger doctor under his wing with the idea of training him to take his place.

Dr. Moore did some teaching and work in surgery and "my Irish luck started then, and I was made northwest medical director for Montgomery Ward and U.S. Gypsum."

In 1940, he closed the office, however, and

accepted the job as the first full-time associate professor of surgery at the University of Washington.

But World War II came along, and "I'm one of those flag wavers I was going to get in that war."

He took out a commission in the Navy and served from 1942-1946, but retained his commission until last year, retiring as a commander.

During the war years he was first at Seattle Naval Hospital and then became senior medical officer with Commander Service Force 10 aboard the USS Ajax.

His final assignment was as chief of surgery with the U.S. Naval rehabilitation unit in Medford, Oregon.

While he was in the navy, Dr. Moore married his wife Mildred, "one of the best nurses around, and the most wonderful helpmeet." She had attended the University of Washington nursing school and several people have told me she was one of the most outstanding members of her class."

While he was in the navy, she taught at the UW nursing school, and when he went to Oregon she went too and had no trouble getting a teaching position there, Dr. Moore said.

After the navy days were over, the Moores decided to move to Greeley, Colorado, and help run the Greeley Clinic. At the end of the year, Dr. Moore got a call from Dr. E. Earl Albrecht, commissioner of health for the Territory of Alaska.

"Somehow he and then Governor Gruening had heard about me and heard I might be at loose ends right then. So Mildred and I went to Denver to meet him.

"We were sitting there in the Brown Palace Hotel, when this man comes flying in the double doors. He was wearing an alligator raincoat and had a brief-case in one hand and a bunch of bananas under his arm, and I said "that must be Dr. Albrecht."

It was, and despite his unusual appearance, Dr. Albrecht had such a force of personality that in two hours time he'd talked the Moores into coming to Alaska to establish an orthopedic program, with a center for crippled children.

When Dr. Philip H. Moore first arrived in Sitka 23 years ago to set up an orthopedic program for the territory, 25 young patients were waiting for him — but facilities weren't.

The Department of Interior had got Japonski installation from the Navy with the specific paragraph that the U.S. dispensary be used as an orthopedic center for the territory. But a dispensary isn't an orthopedic center without a lot of work, and when Dr. Moore arrived there were no tools or tables — even the light fixtures had been pulled out by the Navy.

Shortly after Dr. Moore and his family

arrived, a student was brought in with appendicitis.

"Ernie Feist, the property officer, and I busted open boxes to try to find the right tools. We didn't have anesthetics, so I gave the boy a spinal and we made it," Dr. Moore said.

After three weeks of looking at the large amount of work that had to be done and the little bit of equipment and money to fight it with, Dr. Moore was so discouraged he wrote a letter of resignation.

"It was just a hopeless situation," he said.

But he tore the letter up.

"The kids got to me," he said, shaking his head. "The little rascals hooked me — just couldn't resist them."

In May, 1947, Dr. Moore organized the first field clinics and traveled to villages around the state to see the extent of the problem.

"I found 442 critical cases — and by critical I mean these kids were dying," Dr. Moore said "And that got my Irish up."

Most of the children were crippled with tuberculosis of the bone, and at that time nobdy in the world knew how to cure it.

"There was no specific treatment for TB beyond rest and good food," Dr. Moore said, "I took some time off and visited TB sanitariums and talked with doctors. I came home discouraged. No one knew how to treat it, and here I was thrown into one of the greatest concentrations of TB in the world."

There was practically no surgery being done — it was believed draining the abcesses would make them worse.

After consultation with others, Dr. Moore decided to attack the problem as a research project. He got a grant from the National Research Council to start the first research program on the then newly-discovered drug streptomycin.

The research lab was set up at Japonski, 50 control cases were selected by number and reports and X-rays were sent to the review board — Mayo Clinic doctors with Dr. Ralph Ghormley, chief orthopedist, as chairman.

By 1953, Dr. Moore was ready to present the results in a paper delivered before the American Orthopedic Society in White Sulphur Springs, W. Va.

"There were 700 orthopedists there but there was not a single criticism on the report — the first given on streptomycin." Dr. Moore said.

Along with testing the drug, Dr. Moore also was testing surgical treatment of TB. He found he could clean out the diseased area and graft in new bone — until then the only treatment for TB had been treatment begun by Hippocrates.

A doctor working with Dr. Moore, Dr. Fred Cottington meanwhile was developing chest surgery for tubercular patients. That meant cutting

away rib sections.

"Many of the children I operated on were so young — some barely 2 years old — they didn't have enough bone to graft," Dr. Moore said. "And here was Dr. Cottingham throwing away bone."

Dr. Moore reclaimed the rib bone, and in the process developed a frozen bone bank, probably the first in the world.

"I really had my dander up to lick this thing," he said. "In 1948 I took my whole crew and my bone bank and went to Bethel — I tackled 27 major cases there."

Later he put his bone bank in an insulated chest with dry ice and set off for the interior. Once in Fairbanks, on his way to Kotzebue, he got weathered in with his dry ice melting away; finally he grabbed a fire extinguisher in the airport and quickly sprayed carbon dioxide into the bone chest. It lasted to Kotzebue, where Dr. Moore performed many operations.

"We had other problems, though," Dr. Moore said. "We buried our bone bank to keep it frozen, and the sled dogs kept trying to dig it up."

The problem was solved — along with many others — and in the next few years Dr. Moore traveled around the state, by dog sled, bush team, anyway he could, finding crippled children and almost literally carrying them to Sitka for treatment.

"I took to wearing an alligator raincoat, I had so many babies wet on me," he said laughing.

During those same years, Dr. Moore was refining his surgery techniques, doing research, taking emergency life-saving trips to other communities, and helping supervise the growth of the orthopedic center into a Public Health Service Hospital.

"The lives that man has saved!" a nurse who worked with Dr. Moore in the early days said, "I don't think anyone knows just how much he's done."

In addition to his work, Dr. Moore stacked up more honors. He's an honorary member of the South Carolina Orthopedic Society, a highly exclusive Royal Society of Health in London (only 82 members allowed), the 49'ers Press Club membership, named to Who's Who in Medicine, a doctorate degree from the University of Alaska, where he has served on the board of regents.

The Sitka American Legion cited him with a medal for saving a woman's life, ACCA cited him for his work and the Ketchikan ACCA named itself after him. The Elks Clubs of Alaska cited him for his work in establishing their cerebral palsy program.

He's been taken in as a member of the local, state and national medical associations (and served as president of the state group) is a diplomate on the American Board of Surgery and in 1972 he will

complete his ninth year as Alaskan Governor of the American College of Surgeons.

He's a member of the International Society of Surgery — the highest society for surgeons — the Pan Pacific Surgical Association, Pan-American Medical Association, American College of Surgeons, Elks, Moose, Alaska Council, Boy Scouts of America, VFW, American Legion, and Alaska Native Brotherhood — to name a few.

"The one who got all this started was Margo Hoppin," Dr. Moore said. "She was the mother of Alaska Crippled Children and Adults Association, and she really hung on. Bankers would give her \$1,000 for the crippled children program just to get her out of their office — she really browbeat them."

But her tenacity worked; she was the one who interested Dr. E. Earl Albrecht, health commissioner for the territory, in the need of an orthopedic center, and Dr. Albrecht was the one who got Dr. Moore to come to Sitka.

Other friends helped along the way; children were sent to hospitals in the states, and great doctors from other hospitals came to Sitka to help.

"Dr. Howard Hatcher, the late Dr. Sterling Bunnell and the late Dr. Mary Sherman from the University of Colorado, Dr. Austin T. Moore from Columbus, S.C., and Dr. Robert Ray from the University of Washington — they all came here," Dr. Moore said.

By 1955, Dr. Moore "figured the crucial problem was over" and resigned as a full time orthopedist for the state, although he still remained a consultant and went into private practice in Sitka.

Even in his private practice, however, he continued to draw patients, doctors and attention to Sitka. Among other things he's developed a back-fusion operation.

Now he and his wife Mildred who's been his nurse the past several years, plan to go to Seattle where they're having a boat built for them, vacation awhile, then return to Sitka in the new boat. They plan to take trips — their daughter Kathleen and her husband Richard Nelson will graduate from the University of Alaska this spring and plan to move to Dallas where Nelson has accepted a position with Atlantic Richfield.

Besides traveling to such places as Dallas, and their home in Sequim Bay, the Moores will also do considerable hunting, fishing and camping around the state.

But there'll also be work. Dr. Moore plans to research some 6,000 records from his Mt. Edgecumbe days, collect the important data and program it at the University of Alaska where younger doctors can draw on his years of experience.

GREETINGS FROM THE PRESIDENT

As your President I want to greet each one of you. All of us in the Alaska State Medical Association are working for better health care for each Alaskan. Interesting developments in extending and improving such care are coming thick and fast. Many changes are in the works in medical and allied fields, and your ideas will help us to lead and guide these changes.

Our association should be the source of new ideas for fostering good health care for all. Let us all work together on this. Please feel free to send your suggestions to my office.

Edward D. Spencer, M.D.
Box 1048
Sitka, Alaska 99835

REPORT OF THE IMMEDIATE PAST PRESIDENT

Now that my turn as Alaska State Medical Association President has been concluded, a brief inventory of the past year's achievements and shortcomings may be in order. I am sure that very few members noticed any dramatic changes during my tenure. However, as in every year since we have employed a full time Executive Secretary, the level of activity by the State Association has increased tremendously. The costs of the operation have also of necessity increased. I anticipate, however, that any deficit incurred this year will be minimal compared with past years operations (which, if true, is not necessarily due to my efforts). We should be operating in the black within the next year or two, as several programs now proposed or underway, bring us some return on our investment. This would not be possible without our ASMA office and full-time staff. With experience, the staff is assuming more responsibility, greatly increasing their output. An example of the many services rendered to members and non-members alike is the correlation and answering of nation-wide correspondence about practice opportunities and locum tenens possibilities. Rather typically, while this important activity takes a great deal of time, it provides no revenue for the ASMA office.

Committee activities in the past several years have increased significantly. I refer especially to the Bush Medicine and Legislative committees. The Bush Medicine and Public Health committee has effectively begun its tremendous task, which will probably extend over a number of years. This is, to determine the medical needs of our state and how these needs can best be met. Legislative Committee activities are based on hundreds of hours of physicians' donated time. The activities of this committee benefit all citizens of Alaska and are primarily directed toward reviewing or proposing health legislation. Only persons that have actively worked with this committee or have seen the results of its efforts can appreciate the tremendous benefits that can accrue from such active committee efforts, again expedited by the ASMA staff.

The failures that our Medical Society might be accused of can be ascribed to the lack of sufficient funds to carry out many desirable activities. For example, it is highly desirable to send a physician delegation to Juneau several times during the legislative session. Both last year and this year, a number of physicians did take time from their practices, paying their own expenses to go to Juneau to testify on health matters before various legislative committees. I personally was told by many legislators that this is the most important thing we as physicians can do to encourage knowledgeable health legislation.

If sufficient funds were available, we could pay our committee members to travel more extensively into various areas in Alaska to assess health needs. They could then more accurately plan solutions to various community problems. There are other areas in which our efforts have been weak and in which much more needs to be done. As usual, physician time and money are necessary ingredients for worthwhile achievement in most of these areas.

I want to express my sincere appreciation to all those committee members who spent so many hours this past year on many problems that face the physicians of Alaska. It is my hope that all physicians practicing in Alaska will see the advantages of active membership in the Association, and lend their suggestions and help, as well as their criticisms, to the ASMA officers and staff. It is the prerogative of any Association member to introduce resolutions or lobby among fellow members to try to influence the Association's activities and decisions. By cooperative efforts of all physicians we shall gradually develop increasing importance in the solution of health problems of Alaska. Without such cooperative efforts our influence will gradually disappear, and we will become mere puppets of a bureaucracy.

Paul G. Isaak, M.D.

ALASKA STATE MEDICAL ASSOCIATION

25th ANNUAL MEETING

By Bob Ogden

One hundred three physicians, 45 exhibitors, and 58 guests and paramedical personnel attended the 25th annual convention of the Alaska State Medical Association, June 3-5, in Kenai, Alaska. During the annual banquet, Friday, June 5, President Paul G. Isaak, M.D., presented the Physician of the Year, Community Service, and Appreciation awards.

Joseph Rude, M.D., of Juneau, received the A.H. Robins Community Service Award for his years of service to many small and large communities throughout Alaska. Dr. Rude practiced in Ketchikan in 1929 and in Petersburg from 1929-1941. Since 1941 Dr. Rude has been in private practice in Juneau. In 1964 he traveled to Bolivia for two months as a volunteer physician. In 1966 he worked as a volunteer physician for three months as the Maynard-McDougal hospital in Nome. In 1968 Dr. Rude covered for Dr. Stanley Jones' practice in Haines for seven weeks. Since 1968 he has been traveling to Skagway once a week to provide medical coverage for that area.

Arthur N. Wilson, Sr., was honored as the Physician of the Year. Dr. Wilson moved to Alaska in 1930 and worked for the Kennicott Copper Corp. at Latouche until the mine closed in 1932. In 1933 he opened his office in Ketchikan, in the same building where he practices today. In 1940 Dr. Milo Fritz who was newly arrived in the State, entered practice with Dr. Wilson and Dr. Henry Turner until Dr. Fritz's call to active duty by the Army Air Force. Dr. Wilson is presently practicing with his two sons, James and Arthur Wilson, Jr. During the many years of his active practice, Dr. Wilson has received many awards of recognition. He has been awarded the Silver Beaver Award by the Boy Scouts of America, was the President of the Ketchikan Rotary Club, and a 32nd Degree Mason. He has been the full time city health physician for the city of Ketchikan since 1950. He was President of the Alaska Territorial Medical Association in 1945 and a delegate to the AMA in 1946. In 1967 he was honored with the Robins Community Service Award for his extensive service to the City of Ketchikan and has served many terms as President of the Ketchikan Medical Society.

Dr. Isaak presented an award of appreciation from the AMA to Gayle Sacry, M.D., of Cordova for his three months of service as a volunteer physician in Vietnam.

Awards of Appreciation were given to Russ Carter of Biddle & Crowther, who has attended all 25 of the Association's conventions; and to Max Countryman of Merck Sharp & Dohme, for his 18 years of service to the physicians of Alaska.

Edward Spencer, M.D., the new president of ASMA, presented Dr. Isaak, the immediate Past President, a plaque of appreciation for his many years of service to the Alaska State Medical Association.

During the banquet, Dr. Isaak announced ASMA Council members for 1970-71:

Edward Spencer, M.D., President
J. Ray Langdon, M.D., President-Elect
Paul G. Isaak, M.D., Immediate Past President
James Wilson, M.D., Vice President
Robert Wilkins, M.D., Secretary-Treasurer
Keith Brownsberger, M.D., Anchorage Councillor
Stanley Jones, M.D., Southeastern Councillor
William Kinn, M. D., Northern Councillor
Paul Eneboe, M. D., Southcentral Councillor
Joseph Ribar, M. D., AMA Delegate

The scientific sessions and exhibits were well attended and the ASMA was again fortunate to have outstanding speakers. Dr. Robert Cavitt, President-Elect Juneau Medical Society, announced meeting dates for the 1971 meeting in Juneau — June 8, 9, 10.

The House of Delegates endorsed the concept of the medicolegal panel as outlined to them by the medicolegal committee. They also requested that the Bush Medicine and Public Health Committee look into the matter of peer review activities for hospitals where the medical staff is too small to perform this activity for themselves. The Committee may perform peer review services providing there is no interference with their official duties and providing they are properly remunerated by the hospital or government agency involved. A number of resolutions of general interest were passed.

ALASKA STATE MEDICAL ASSOCIATION

1970-71 COUNCIL



Arthur N. Wilson, Sr., Physician of the Year
Joseph O. Rude, M.D., Community Service Award



Arthur N. Wilson, Sr., M.D.
Physician of the Year



Joseph O. Rude, M.D.
Community Service Award



Edward D. Spencer, M.D.
President



J. Ray Langdon, M.D.
President Elect



James B. Wilson, M.D.
Vice President



Paul G. Isaak, M.D.
Immediate Past President



Robert B. Wilkins, M.D.
Secretary-Treasurer



William F. Kinn, M.D.
Northern Councillor

Keith M. Brownsberger, M.D.
Anchorage Councillor

Stanley Jones, M.D.
Southeastern Councillor



Paul Eneboe, M.D.
Southcentral Councillor



Joseph M. Ribar, M.D.
AMA Delegate

SELECTED RESOLUTIONS OF GENERAL INTEREST PASSED BY THE ASMA HOUSE OF DELEGATES JUNE 1970

LIBRARY

2-70. The Alaska Health Sciences Library at the U. S. Public Health Service Hospital in Anchorage has been widely used. Physicians have found library services extremely valuable in day-to-day patient care and in continuing education. There is danger now that the library will close on January 31, 1971, because a grant from the Washington/Alaska Regional Medical Program expires then. RMP has advised the library to seek funds elsewhere in the future. Despite this, the library is preparing a new application for support by RMP.

Regional Medical Program funding has been 50 per cent since the library opened three years ago, the remaining funds coming principally from the U.S. Public Health Service. Support of the library by the State of Alaska, similar to public provision of law libraries in courts, is being sought but will not come easily. On January 10, 1970, the Anchorage Medical Society moved to provide at its expense a second telephone line to the library and in addition, by unanimous resolution, asked RMP to continue its support of this nationally unique RMP project.

RESOLVED, that the Alaska State Medical Association tell the Washington/Alaska Regional Medical Program that the library has been so successful that it is indispensable and that it urge approval of a new application for funds for the library.

IMMUNITY

3-70. A free flow of discussion, suggestions, and criticism among physicians concerning the care of patients promotes good care. Much of this occurs at hospital section and committee meetings. There is an increasing tendency to use reports of such meetings in court in malpractice actions against physicians. This in turn is curtailing open discussion of cases at hospital meetings.

RESOLVED, that the Alaska State Medical Association seek legislative declaration that the deliberations and conclusions of hospital staff, section, and committee meetings are not discoverable in court in suits alleging malpractice by a physician.

TOBACCO

5-70. The government of the United States acknowledges the dangers to health of tobacco smoking yet continues to provide price supports to tobacco growers, encourages export of tobacco, and permits written and aural advertising of tobacco products. The government has no program to find worthwhile uses of tobacco and no plan to induce tobacco farmers to switch to the cultivation of other crops.

RESOLVED, that the federal government cease all support, direct or indirect, to the tobacco industry and that it ban all advertising of tobacco products.

Distribution: Appropriate government agencies — Alaska Congressional delegation.

NERVE GAS

11-70. Poisonous gases are of dubious military value in offensive or defensive warfare, and their transfer from place to place and storage is hazardous and expensive.

RESOLVED, that existing depots of nerve gases be detoxified wherever they are presently stored.

HISTORIAN

15-70. Many figures, illustrious in the history of Alaska, have already left us. The colorful and unique medical history of this great state should be recorded.

RESOLVED, that in this year of its 25th Annual Meeting the Association establish the office of historian, whose duties will be:

1. To write the medical history of Alaska medicine in style and in detail.

2. To make tape recordings of interviews with those who knew the early days of medicine.

3. To establish a collection of books, papers, photographs, instruments, equipment, and other memorabilia, and

4. To arrange for the storage and preservation of old Association records in the archives of the University of Alaska or other appropriate place.

MARRIAGE LICENSE

17-70. The State of Alaska requires a physician to attest that an applicant for a marriage license is "free from communicable or infectious disease". A physician cannot, in truth, determine this even after an extensive examination. Physicians, nonetheless, have been threatened with prosecution for signing a premarital examination form without examining the applicant.

RESOLVED, that the Association ask the Division of Public Health of the Department of Health and Welfare what information it seeks and can justifiably require of an applicant for a marriage license and to suggest more rational ways to gain this information.

DRUG SUBSTITUTION

20-70. Alaska is one of three states not having a law prohibiting a pharmacist from substituting a drug which he feels is equivalent for a brand name product specified by a physician. Substitution should not be allowed as it is the physician who ultimately must take responsibility for the quality of the drug prescribed. If he wishes to give choice of manufacturer to the pharmacist, he may order a drug by generic name. Some "generic" products have recently been demonstrated to be pharmacologically inferior to "chemically equivalent" brand name drugs.

RESOLVED, that the Alaska State Medical Association seek legislation to prohibit drug substitution by pharmacists.

Committee Recommendation: Pass.

LEGISLATIVE REVIEW

By Rodman Wilson, M.D.

This was a successful year for the Legislative Committee of the ASMA. Many of the matters it proposed or otherwise supported were enacted into law approximately as we wanted them. Among these were:

1. Improved education for exceptional children.
2. Expansion of hot meal programs in schools.
3. Creation of the 1200 sq. mi. Chugach State Park.
4. Full payment to private organizations who care for children who are wards of the state.
5. Anatomical gift act.
6. Liberal abortion law which makes abortion before the fetus is capable of surviving independently from the mother a matter between a patient and her doctor, so long as she has lived in the state 30 days.
7. Abolition of Basic Sciences Board for chiropractors in favor of an examination by National Board of Chiropractor Examiners and raising licensing fees to equal those paid by physicians. This ends the Basic Sciences Board as all other groups had previously been exempted.
8. Rewriting of medical licensing law to cast out archaic language and concepts and to allow licensure by endorsement. Reciprocity has been abolished. Other important changes include:
 - a. Selection by the Governor of a new member of the 5 man State Medical Board from 3 names submitted by the ASMA. This is the first recognition of the ASMA in Alaska law.
 - b. Requiring internship for licensure but exempting students, interns, residents, and other postdoctorate trainees from licensure.
 - c. Extending temporary license to as long as 8 months and locum tenens permits to

4 months with extension of the latter on approval.

- d. Including advertising, except for notice of opening, closing, or removing practice as ground for revocation of license.
- e. Removing ghost surgery and betraying of professional secrets as grounds for license revocation because there is little or none of the former and so much of the latter as to place the problem beyond the remedy of the law.
- f. Including in the definition of practice of medicine testifying in court as an expert on medical matters, thus requiring Alaska licensure of out-of-state expert medical witnesses.
9. Funding of alcoholism programs.
10. Establishing a state loan fund of 20 million dollars for construction of hospitals and allied facilities.

Proposals still in doubt on June 7, 1970 on adjournment of the Legislature, as the Journal goes to press, were changes in Comprehensive Health Planning laws and funding of Community Mental Health Centers.

We asked for establishment of a state loan fund of 20 million dollars for construction of hospitals and allied facilities, but it was deleted from the budget in the final days of the Legislature, as was funding of community Mental Health Centers. We wanted changes in the state comprehensive health planning law but failed to get them. We asked for too much "immunity" for specified activities of physicians and got none.

We successfully opposed enactment of Medicaid, exclusion of religious healers from the Child Neglect Act, repeal of implied consent (testing drunk drivers) law, and change in our excellent good samaritan law.

RECEIVED FOR REVIEW

Modern Treatment Volume 7, No. 1, Treatment of Cardiac Arrhythmias, Guest Editor Noble O. Fowler, M.D., 237 pp. illus., \$20.00, Harper and Row Publishers, New York, 1970.

Synopsis of Ear, Nose and Throat Diseases, Third Edition, Ryan et al., 379 pp. illus., \$10.75, The C. V. Mosby Company, St. Louis, 1970.

Synopsis of Obstetrics, Eighth Edition, Charles E. McLennan, M.D., 496 pp., illus., \$9.50, The C. V. Mosby Company, St. Louis, 1970.

Medicine and Stamps, Edited by R. A. Kyle, M.D. and M.A. Shampo, PhD. 216 pp., illus., \$1.00, The American Medical Association, Chicago, 1970.

Epidemiology: Man and Disease, by John P. Fox, M.D., Carrie E. Hall, R.N. and Lila R. Elveback, PhD., 337 pp., illus., \$12.95, The MacMillan Company, New York, 1970.

1970-71 Drugs of Choice, Walter Modell, M.D. Editor, 894 pp., illus., \$20.50, The C. V. Mosby Company, St. Louis, 1970.

Textbook of Nuclear Medicine Technology, Paul J. Early, MA. Razzak, M.D. and D. Bruce Sodde, M.D., 278 pp. illus., \$15.50, The C. V. Mosby Company, St. Louis, 1970.

MUKTUK MORSELS

Kenai Peninsula

The Alaska State Medical Association meeting in Kenai-Soldotna attracted a record number of physicians, exhibitors and guests.

Dr. Paul Isaak, who just ended his one year term as President of Alaska State Medical Association has passed his Family Practice Boards. He also earned his instrument rating.

Dr. Robert Hill, of Alabama will enter general practice in Homer in August. He has just completed 2 years with the USPHS in Bethel and will be associated with **Dr. Paul Eneboe**. **Dr. Hill** recently had his first daughter, second child.

Anchorage

Dr. William Reinbold of Ohio, board certified in Orthopedic Surgery, has entered private practice here after serving at USAF Hospital, Elmendorf.

Dr. William Larsen, board certified Pediatrician from Arizona, has joined the Alaska Clinic. **Dr. Larsen**, also formerly at Elmendorf Hospital, enters practice here after a year in private practice in Washington State.

Dr. C. William Bugh has closed his office at the College Medical Center and has entered a new General Practice Clinic arrangement with **Dr. Michael Beirne** at the new Lake Otis Medical-Dental Building.

Dr. Royce Morgan and **Dr. Grace Thomson** plan to relocate their General Practice offices in the Lake Otis Building.

Dr. Walter Tofani is closing his office at The Alaska Clinic and will enter private urological practice at the Lake Otis Bldg.

Dr. Michael Beirne has obtained a Small Business (SBA) loan to help construct his Lake Otis Bldg. and has applied for O.E.O. funds to help finance some type of neighborhood health center at this clinic, located between the expensive residential area of College Village and the middle class residential sections of Green Acres and University Park. The Lake Otis Building, now under construction, is located about one mile from Providence Hospital.

We understand that suit has been filed on behalf of the Lake Otis Bldg. and Raypath Corporation (another Medical-Dental Bldg. in which **Dr. Beirne** is also a major stockholder) by Lawyers **Boyko** and **Walton**, to prevent the Providence Medical Office Building, now under construction by The Sisters of Providence adjacent to their hospital, from being used as such. Allegedly their complaint relates to the proposed competitive office facility being constructed on land donated by the U.S. Government for non-profit hospital use, as well as supposed deficiencies in the City and Borough issuance of a building permit under current zoning regulations. Raypath is currently owner of the major medical office building in Anchorage. Many of the current lessees in that building, plan to move to the new Providence Hospital Office Building. Raypath has allegedly recently presented many of these lessees with an option to lease for a three year period. It would appear that there will be a certain mobility in medical office arrangements in Anchorage for the next year or two.

Dr. Alexander Russell has closed his private office at the College Medical Center to complete his Pediatric Residency in Atlanta.

Dr. Bruce Wright is planning to enter a three month fellowship in Arteriography at University Hospital, Uppsala, Sweden.

Dr. Maurice Coil of St. Louis, a board certified Radiologist, most recently with the USPHS Hospital in Anchorage, has opened his office in general radiology and therapy at Providence Hospital.

Dr. Jon Aase has closed his part time office with the Anchorage Pediatric Group.

Dr. Boyd Skille of Minnesota, board eligible in Ophthalmology, plans to open his private practice office at the Lake Otis Bldg.

Dr. George Hale got his instrument rating.

Dr. Ken Ashby had a second daughter, fifth child.

Dr. Mike Cusack had a third girl, fourth child.

Dr. Thomas Harrison received his Ophthalmology Boards.



PREPAID MEDICAL CARE PLAN PROPOSED FOR ALASKANS

By A. von Hippel, M.D.

At the recent annual ASMA convention, George Raymond, Vice-President, Blue Cross, Washington/Alaska, proposed that Alaskan physicians unite voluntarily in a state-wide physician controlled prepaid Blue Cross—Blue Shield program. Indicating that such a plan could benefit both patient and physician, Mr. Raymond suggested that only through such an organization could “physician control” over medical care delivery be retained.

The subsequent discussion of his proposal raised certain practical considerations that should be of general interest.

Non-Profit

Blue Cross always emphasises that it is a “non-profit” health insurance purveyor. The term “non-profit” implies a selfless devotion to public service. It also suggests that a lower cost product should result since profits and taxes need not be considered. One notes with interest, therefore, that many “for profit”, taxpaying insurance company programs have rates competitive with the non-profit programs. One might assume that the non-profit programs could rapidly put the “strictly-for-profit” boys out of business if the management of both programs were equally competent. Can it be that fee-for-service with a profit potential improves the efficiency of insurance programs too?

Prepaid Health Insurance Program

In Mr. Raymond’s proposal the financial risk of illness is accepted on an actuarial basis by the health care provider, in return for a lump sum payment which cannot exceed 95% of the cost of comparable medical care for the same group. (He did not specify whether the lump sum was to be paid at the beginning, during, or at the end of the year, but we can guess.)

In large population centers (e.g. with a potential enrollment of over 800,000 persons) 6-7% administrative and accounting costs can be anticipated. Such costs could easily double or treble under large-area, small-population circumstances as exist in Alaska. In any case, these costs are to be borne by the health care providers. The savings in such a plan are presumed to result from a decrease in expensive in-hospital care and

diagnostic services, and from an increase in preventive medical care practiced by the physician (to protect his health care estimate package proposal).

Such savings are non-existent, however, in a case such as ours where only physicians’ charges are to be included in the health care package. Unless such a prepaid package magically results in healthier patients with a consequent reduction in physician practice hours, the concomitant 25% decrease in income could be difficult to justify to most physicians. If any decrease in hospital utilization resulted, however, it would certainly save the affiliated “non-profit” Blue Cross-Blue Shield program a great deal of money.

Physician Controlled

This means that physicians will serve on the board and assist in developing proposals for, and administration of the health care package. As return for this self-administrative privilege they will, of course, be required to live within BCBS program policies such as the 90th percentile cut-off. Seemingly an innocuous and fair method of preventing physician overcharges, the 90th percentile cut-off merely prevents payment of any charge submitted in excess of 90% of other charges submitted for similar services. One might question, however, whether after one or more periods of such a 90% cut-off the 90% might not become the new 100% since a few refusals would tend to group the upper levels of charges just below the 90% level. Certainly a neat method of price reduction and control.

Consumer Benefits

Such a proposal has great merit for the consumer. The savings to “non-profit” BCBS from permitting the health care provider to assume middleman administration and payment costs, plus any savings related to decreased hospital utilization, should such occur, might well result in a minor reduction of costs to the consumer. A much greater benefit might accrue to BCBS, however, if this prepaid proposal resulted in the transfer of a significant amount of insurance business from other companies.

Exactly why the health care provider, who regularly pays his own bills (and who must wade

neck deep in insurance forms to collect part of the fee he has charged the patient for his services) should now accept much of the administrative costs for the complex relationship between patient and insurer, escapes this observer. In addition, the loss of free patient choice of physician, known as being "locked into the program", becomes especially restrictive in relatively underpopulated areas where alternate physicians are rare enough to begin with. It seems almost superfluous to point out to Alaskan patients, who often have a considerable wait to see their physician for routine examinations even now, that any plan which places additional demands on their physicians' time will leave less time for patient care.

Fee for Service

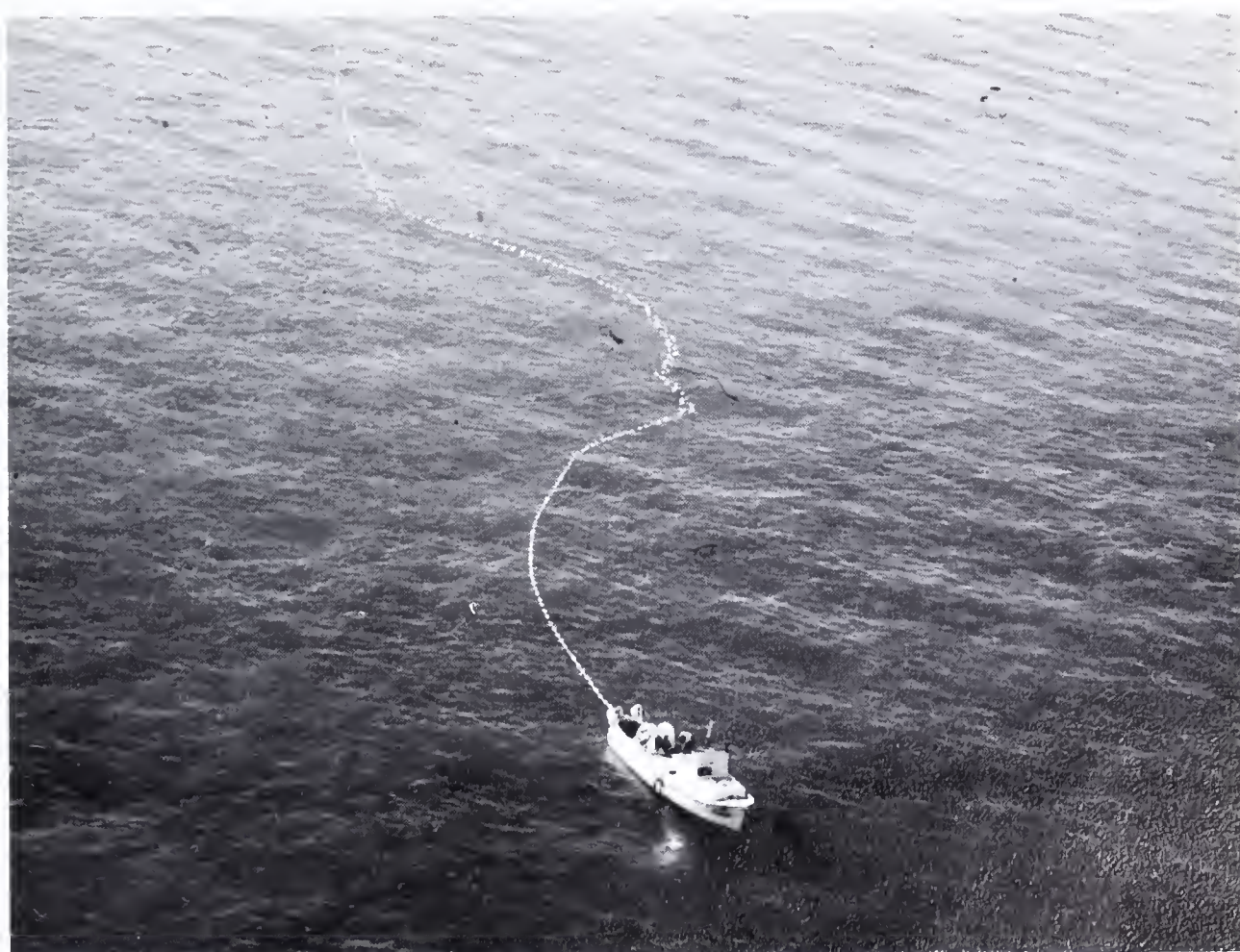
This brings us back to a consideration of the old, allegedly outmoded, fee-for-service concept. In that scheme of things it was assumed that the patient and physician were mutually responsible to each other. The physician, if able, would attempt to restore or maintain health, and the patient, if able, would attempt payment for services rendered. Admittedly, it seems a shame to charge an ill person for caring for him, just as it seems shameful

to charge a hungry person for food. However, proponents of alternate systems had best consider physician efficiency factors carefully. (Just think of the VA Hospitals and T.B. Sanatoria.)

No reasonable person will decry charity in groceries or medical services when needed. However, some apparently reasonable persons have attempted to extend the concept of state responsibility for indigent medical care to those able to carry much of their own burden. People mistake the profit motive for the desire to work only when paid. Most physicians will work for nothing when needed, as being needed is one of the other rewards of medical practice, but few are willing to extend this charity, appreciated by the individual patient, to the much less appreciative and much better endowed body politic.

Summary

It is proposed that Alaskan physicians voluntarily band together to enjoy a 25-40% reduction in income. This reduction would not be associated with any change in working hours or office overhead, but would be packaged with a major increase in administrative headaches.



Drift Boat, Cook Inlet
by Jim Reardon

EDITORIAL

By **R. A. Smithson, D.D.S.**

Since the beginning of the Alaska Dental Society's participation in ALASKA MEDICINE, and the use of this medium as the official publication of the Alaskan dentists, your Editor has been acutely aware of two major deficiencies. One has been the reluctance of our profession to author articles, the second is the almost total lack of dialogue between the members of the society and the society's Editor. The latter is not easily understood, for a dialogue between a member and his editor is also a dialogue between a member and his fellow member, either through "letter to the editor" or a person to person situation. In this

period of many changes; social, political and professional, a discourse between members of our profession is not only timely, but extremely important. Our views and opinions must be shared and voiced collectively for Dentistry to keep reestablishing its place in today's society. Not all changes are progress, but changes are occurring rapidly and if we remain silent, others will decide our future, our role. Hopefully the changes society asks of us will be shared and molded by the profession and thus be progressive and beneficial to all concerned.



AURORA DENTATUS

KENAI

Chuck Bailey has been busy with the City budget every other night.

Ray Youngberg is enroute to California to study Periodontia.

KETCHIKAN

Correspondent Aubrey Stevens delayed at sea enroute from Seattle — no further report.

KODIAK

Dr. John Kobylarz who has been an associate with

Dr. Blake McKinley in Kodiak for the past year has purchased the practice and home of Dr. Raymond Youngberg in Soldotna. Dr. Koblarz begins his practice in Soldotna June 1. Kodiak's loss certainly is Soldotna's gain.

ANCHORAGE

Dr. and Mrs. Joe Harmon have returned from their extended visit abroad and are eagerly reestablishing Alaskan routines. Some of you may have read Mickey's articles in the Anchorage Times.

Dr. and Mrs. Frank Dorsey are driving back in early June.

Dr. Mike Maxwell will be in his new office in June.

THE KENAI-KODIAK DENTAL SOCIETY

By Dr. Blake McKinley

The origin of the Kenai-Kodiak Dental Society stems from the study club composed of the eight dentists of Seward, Kenai, Soldotna, Homer and Kodiak. We gathered together in the summer of 1968 for mutual fellowship because most of us lived some distance from other dentists, and having limited funds for the programs, the dentist hosting the meeting was made responsible for the program. He could give the program himself basing it on a course he had taken, or area of special interest, or he could call on a resource person.

Early programs of the group included a review of oral surgery by Dr. Richard Williams then of Seward; and orthodontics by Dr. Robert Sutherlin of Anchorage.

The group flew to Kodiak the first of May 1969 during the time of the Crab Festival. There the program was divided between Dr. Thomas Hurst of the Kodiak Naval Station who presented an interesting lecture on prosthetics and Dr. Blake McKinley of Kodiak who presented information on Endodontics based on a course by Dr. Schilder of Boston.

At this May meeting the motion was made and passed that we petition the Alaska State Dental Society at their next annual meeting to grant us permission to form a society separate from the Southcentral District Dental Society. The State Society honored our petition the following month. The main reason for forming a separate society was the problem we had in attending the meetings in Anchorage which were held during the week. We found we could better meet all day on a weekend once every two or three months on a mutually agreeable date.

The first meeting of the KKDS was on June 14, 1969 at the residence of Dr. John McCarthy in Kenai where we began the business of the Society by electing officers, working on the constitution and by-laws, and setting up the goals of the society.

The meetings are continuing on the theme started with the study club. They are moved to each of our towns on a more or less prorated basis depending on the number of dentists there. Also we try to schedule the meetings to coincide with any particular events of that town.

Recent meetings have had as their speakers Mr. Cal Coleman of Coleman Dental Laboratory in Anchorage speaking on lab relations, and Dr. Luther Paine of Anchorage speaking at Mt. Alyeska on the subject of practice management.

A meeting for June and July is now in the planning stage. Should the plans materialize it will be held in the Bristol Bay area with Dr. Robert Sutherlin presenting the second part of his orthodontics program.

An August meeting will be held in Kodiak to coincide with the annual outdoor theater production "Cry of the Wild Ram". (In this production, physician Dr. "Bob" Johnson has starred for several years). The program will feature the cooperating roles of the psychologist, anesthesiologist, surgeon, and the general medical and dental practitioner in the treatment of patients.

The Kenai-Kodiak Dental Society is proud to have serving on the Alaska Dental Society executive board Dr. Charles Bailie of Kenai as secretary and Dr. Blake McKinley of Kodiak.

The program for each meeting of our Society will be publicized for others who may be interested in attending. We encourage your participation and look forward to seeing you at some of our meetings.



Left to Right: Mrs. Jane Fair; Dr. Ray Youngbert, president of KKDS; Mrs. Pat Youngberg; Dr. Lee L. McKinley of Anchorage, guest; and Dr. Calvin Fair of Soldotna.

Membership list of the KKDS:

Dr. Raymond Youngberg - President
Dr. William J. Marley of Homer - Vice President
Dr. Blake McKinley of Kodiak - Secretary/Treasurer
Dr. John Kobylarz of Soldotna
Dr. Calvin Fair of Soldotna
Dr. Charles Bailie of Kenai
Dr. John McCarthy of Kenai
Dr. Andrew Slisco of Seward - Associate Member

ON NERVE GAS AND MEDICARE

A Study of Bureaucratic Syntax and Morality

By A. von Hippel, M.D.

The recent nerve gas storage and shipment episode has provided a specific closed system for a study of the bureaucratic process. This should be of some interest to physicians faced with impending total Federal Medicare.

Story: Some months ago an accident with nerve gas stored on Okinawa resulted in hospitalization of 24 persons. Thus apprised of its presence, the local populace has since agitated strongly for its removal. A proposal by the Army to ship the variously aged and infirm bombs, shells, rockets and cannisters by sea and rail to an inland Oregon depot was aborted near term by strong protests from endangered citizens of the Pacific Northwest.

The military then decided to store the 10,000 or 30,000 tons of lethal gas on the essentially unpopulated island of Kodiak, Alaska, thus endangering only Alaskans, Siberians, Brown Bears and the Japanese fishing fleet.

Discussion: This transfer of poison to Kodiak was touted as a great economic boon to the island, with 400-600 "permanent" new Federal jobs being added to the payroll. Additional not-too-subtle, hints were made about the possible removal of the Kodiak Naval Station (with its rather large "permanent" civilian payroll) to Adak if Kodiak citizens were not properly appreciative of this new storage opportunity.*

The Army had agreed to repackage the most unsafe containers and explosives prior to shipment, and planned to have many white rabbits accompany each load. As everyone knows, a white rabbit is much more sensitive to nerve gas than man, for whom a fatal dose may be up to 1/10 cc. So the rabbits would hop about among the bombs and rockets to demonstrate their integrity and hopefully not land too hard on a loose bomblet or rotten cannister.

The mystery of the four hundred to six hundred new jobs cannot be explained by the need for rabbit keepers alone, or even for porters, longshoremen and guards. One can only assume that these new employees would serve as additional leak indicators and be distributed about among the rabbits. Presumably a relative of some politician will hold the highly paid overseer's job, and watch the rabbits and other employees gambol about (on closed circuit T.V. from his gas-proof quarters) in order to detect any significant leaks. Thus he could seal off affected areas before the public was endangered. One might anticipate, however, that later economy and anti-inflation programs of the government would require replacement of the large

"permanent" work force by one or two senile custodians.

The public outcry from the Pacific Northwest has so far not achieved its goal of simple, safe, and permanent detoxification of the nerve gas, in situ, on Okinawa. While admitting that such detoxification would be safer than transfer and storage, the Army claims that possession of the gas acts as a deterrent to others who might use it. As usual, we are told that since the civilian population at risk cannot know secret facts concerning national security, it can hardly be expected to appreciate the good and responsible decisions of the military.

Now, about those good and responsible decisions:

We know by their own admission that the Army permitted the gas cannisters and bombs to deteriorate to a dangerous condition on Okinawa.

We know that if war can ever be justified as a means of establishing an appropriate international pecking order, that selective destruction of the opponents military capability is generally accepted as an appropriate means to that end. Conversely, the mass destruction of civilian populations is felt to be immoral, wasteful, distasteful, and unnecessary in view of the current overkill capacity of all major opponents.

We further know that the deployment of nerve gas has the same pin-point accuracy as the predictions of local weather upon which it depends. It is certainly not an ideal weapon for destruction near ones own front lines when the prediction calls for "winds light and variable".

In addition, nerve gas remains toxic for extended periods of time and thus must be buried or destroyed by areawide burning, further aggravating air pollution problems.

So without access to top secret information it is possible to question the military's concern for safe storage or civilian population protection, as well as the rationale for any use of such a mass casualty weapon, except in the special case of the Chinese boast that they can survive despite destruction of all their cities, should we ever become active opponents. In that special case one may argue that if they can kill all of us, we must also be able to kill all of them. (The old "an eye for an eye" updated to "a population for a population".) If our nerve gas is dedicated to the Chinese only, one can understand why the Army

* Of course no admiral in his right mind would like to move his base from Kodiak to Adak in the Aleutians, and the Coast Guard would need much of the Naval Station even if the Navy moved out.

could let the bombs and containers deteriorate by inattention during this period before the anticipated oriental threat. Presumably the stuff can be upgraded when the threat becomes more acute.

Accessibility: Anyone who has ever tried to get to Kodiak is well aware, however, that the air and sea approaches are less than optimal at best and frequently submarginal due to bad weather. As the short airstrip cannot handle large jets, one might say that anything stored in Kodiak would be subject to certain retrieval delays and, therefore, subject to preventive destruction by the opposition. Further, in this earthquake prone region, currently stimulated by AEC nuclear "tests", we can assume that the bombs will occasionally be jiggled a bit, and may even get the hell bounced out of them.

The AEC has assured us that the Amchitka explosions are safe and beneficial. To show their confidence and willingness to share our risk they left many technicians as hostages. How more convincing if the senior AEC staff would join us on the scenic Alaskan shore for the duration of the tests. They could even bring their families for a deductible holiday and all stay in Kodiak, further helping the economy.

Summary: The promise of more Federal jobs means more Federal power to pressure the local populace. The storage of lethal gases in our earthquake prone area means an unacceptable risk to our people. The poor access by air for immediate retrieval if military use is suddenly deemed essential should rule out Kodiak in any case. The demonstrated lack of interest in the safety and upkeep of stored poisons by the

military suggests that we cannot rely on them to worry overly about the safety of the local population, while the concern that we kill a greater percent of the orientals than they of us is sick thinking unless one prefers repopulation of the post-cataclysmic world with another species.

Conclusions: There appears to be no excuse for continued possession of nerve gases, and they should be destroyed in situ. However, if nerve gases must be stored, Washington, D.C. would be a good site as no earthquakes are likely there, air access is excellent, larger populations are available to guard them, and proper maintenance will likely be of greater interest to the military.

Footnote: A major escape of lethal gas would solve several bureaucratic dilemmas.

It would automatically eliminate the native land claims by eliminating the Natives, a long sanctioned Federal tradition.

It would also reduce the state population to a level consistent with making the entire state a national park.

It would liberate 900 million dollars (plus additional oil revenues) to the bureaucratic structure for administration of the park.

To the extent that indigenous species were eliminated, scientists could restock various areas with more desirable species. Controversies about the suitability of the Bactrian camel to the Alaskan terrain could finally be settled.

Urban summer riots could be eliminated by transfer of college students, militants, and the unemployed to Alaskan summer work projects or North Slope prison camps.

NERVE GAS FACT SHEET: QUESTIONS AND ANSWERS

The following material was recently prepared by an Oregon organization "People Against Nerve Gas" when shipment of nerve gas through Oregon was contemplated. It is reprinted by permission as a public service to increase awareness and understanding of the proposed Kodiak nerve gas storage project.

WHAT IS NERVE GAS?

Nerve gases GB and VX are really colorless liquids which must be exploded or otherwise sprayed into tiny droplets to form a gas cloud, rather like the insect spray cans you use in your garden.

HOW DOES NERVE GAS KILL?

It is important to realize that nerve gases do not merely relax the victim and put him to sleep, to be awakened later as a prisoner. Nerve gases kill: quickly and completely. To understand how, you will need to know how nerves work.

Almost all functions of the body are controlled by nerve signals. The signal is conducted

along the nerve as an electrical impulse. Between the nerve and the organ or muscle which is to respond is a small gap. As the electrical signal reaches the gap the nerve releases a little packet of a chemical stimulator substance: ACh (Acetyl-Choline). Two things happen to the ACh.

First ACh stimulates the organ to function. For a muscle, this means it will contract. Mucous glands in the lungs will secrete mucous into the lungs. Other organs respond in their appropriate ways.

Second, and equally important, ACh is destroyed by a special enzyme located in the gap. This is absolutely necessary, since the continued presence of ACh would mean that continued

stimulation would occur and all control would be lost.

Nerve gases kill by poisoning the enzyme that destroys ACh.

All the muscles of the body contract; they are out of control, paralysed. Glands secrete mucous into the lungs and the lungs fill, a sort of super asthma attack. Abdominal cramps, vomiting, diarrhea, sweating, and tremors also occur. The brain is not affected immediately and the victim will remain fully conscious during a large part of this choking process. Death comes from the inability to breathe because of muscle paralysis and because of fluid in the lungs.

HOW MUCH NERVE GAS DOES IT TAKE TO KILL?

Very little. The equivalent of a small drop of GB inhaled or swallowed brings death in minutes. VX is even more toxic; a very tiny droplet anywhere on the skin dooms the victim. Unlike some animals, human lack a body defense against this agent, which allows rapid penetration through the skin.

WHAT DOES IT TAKE TO PROTECT ONE AGAINST NERVE GAS POISONING?

Since the nerve gas VX can kill by being absorbed through the mouth, nose or skin, only a complete covering with a rubber suit, mask and helmet, self-contained breathing apparatus, food and water will protect people exposed. For a civilian population the only truly safe way to avoid trouble is to leave the area before any exposure can occur.

HOW LONG DOES THE NERVE GAS STAY AROUND AFTER AN ACCIDENT?

GB is inactivated by evaporation into the air and dilution, and by reacting with water. In a solution of neutral water half the GB is still active after four hours, a quarter after eight hours, 10% after 12 hours and so on. On dry ground the inactivation rate is significantly slowed. VX is much more persistent. In neutral water, such as a river or lake, VX-like compounds are known to be only half inactivated after 25 days. After another 25 days a quarter is still active. On dry ground, leaves, buildings and so forth the life time of the active toxic liquid can be many months.

CAN YOU BE TREATED AFTER NERVE GAS POISONING?

Yes, with difficulty. Two drugs are required, one against the muscle paralytic effects and one against the secretory effects. To be maximally effective the drugs should be injected. Both must be given soon after an exposure, preferably within seconds. There are two reasons for this: First is the

highly toxic nature of the poisons. They kill in minutes, therefore they must be counteracted sooner. Second, the nature of the poisoning is such that after a short time the drugs become ineffective, unable to displace nerve gas from the poisoned enzyme.

One of the drugs, PAM, can be given in advance because it has relatively few side effects. The other, atropine, can only be given safely after you are certain that you have been exposed to a nerve gas. This is because the amounts of atropine that are required (described as "heroic" by a standard medical text) will kill you yourselves if you haven't been exposed to the nerve gas.

Combat personnel are sometimes given self-powered hypodermic syringes to use on themselves if they think they have been attacked by nerve gas. These devices are not suitable for a civilian population because the doses of the drugs must be carefully controlled to avoid being killed by the drugs themselves. Hospital personnel have stated that proper treatment of as few as half a dozen partially poisoned victims would completely tie up their facilities. Again the only safety precaution that makes sense is to leave the area before exposure can occur.

ARE ANIMALS AND PLANTS POISONED BY NERVE GAS?

It is certain that all animals, from those as simple as a barnacle on up, will die from exposure to nerve gas. In fact some nerve gases are commonly used against insects in sprays like malathion and parathion. A large spill of combat nerve gases into a major river would be expected to kill all animal life from the point of spillage to the mouth of the river and out into the ocean until dilution or inactivation rendered the material harmless. In the only publicly confessed accident with nerve gas testing, 6000 sheep were killed by exposure to VX released some thirty miles away. Plants are not directly affected.

IS THERE ANY WAY TO DESTROY NERVE GASES?

Yes, simply and cheaply. If the liquid were easy to remove from the weapons in which it is placed, the easiest destruction is by acid or alkali treatment. The techniques are well known and could be carried out even on a ship at sea.

Since some of the nerve gases are in explosive devices, poorly designed by the Army's own admission, another technique may have to be used. This involves burning the gas in a high temperature smelter furnace, equipped to withstand the relatively mild explosive impacts produced by the weapons. The exhaust of such a furnace would be re-burned and tested continuously to ensure no hazard would arise. This method also is practical

and, in fact, one company has submitted estimates of between \$250,000 and \$400,000 as the probable cost of detoxifying the entire shipment for Washington and Oregon.

IF EVACUATION IS THE ONLY SAFETY PRECAUTION, HOW MUCH AREA MUST BE EVACUATED?

The answer depends almost completely on the particular circumstances of an accident. The shipment must be loaded at docks in Okinawa located in the heart of a population center. Everyone there and in Bangor, Washington, should be evacuated.

The rail shipment planned for the states of Washington and Oregon passes through relatively lightly populated areas. Nevertheless a released gas cloud can be carried long distances on unpredictable winds. Gas clouds of smoke from forest fires south of Lake Quinault in the state of Washington obscured visibility 500 miles away in Medford, Oregon, near the California border. Other fires have caused visible pollution as far away as Nevada.

Temperature inversions and variable winds complicate the normal atmospheric cleansing. If you can predict the weather and wind patterns accurately you can make a sensible evacuation plan with inconvenience to a minimum of people. If you cannot predict the weather with high accuracy the only safe thing to do is to remove everyone within many miles on all sides of the route of shipment.

For further information contact P.A.N.G. (People Against Nerve Gas), Box 1127, Portland, Oregon 97207, or Box 2102, Eugene, Oregon 97402.

HOW ABOUT EVACUATION?

According to Oregon authorities, the Army, as part of "Operation Red Hat" plans, asked the state to be prepared to evacuate a circle of 20 mile radius after any accident. When told this was impossible, Secretary Laird decided it had been based on "too strict an interpretation of safety standards" and changed the request to a five mile range "down wind" from the point of nerve gas release. The assinineity of this idea is plain and requires little elaboration. Once the nerve gas materials are released, especially by explosion, there will not be time for any evacuation. It would also be impossible to determine the exact area to be cleared, much less to move a panicked population within the few minutes available. As far as the area to be cleared is concerned, it is worth noting that the sheep killed in Utah in 1969 were at least 30 miles from the point of release of VX gas.

So, with evacuation after an accident out of

the question, we are left with the question of mass evacuation before shipment. Since there is no adequate means of medical treatment for an exposed population this is clearly the only method of protecting the people from effects of an accident (or "incident"). However, this presents a few problems which the federal administration must recognize.

First, the evacuation must include a sufficient region adjacent to the route of shipment, and a safe area must be located to receive the evacuees. The twenty mile radius from any point passed by the shipment (as originally suggested by the Army) represents a minimum figure. A "safe" area would then have to be found to receive the hundreds of thousands of persons involved. Presumably the beach areas would be best, but they can hardly handle summer tourists, much less half the population of the Northwest.

Second, evacuation must be completed before any unloading at Bangor and continue until all materials are stored in Hermiston. The lawsuit filed by the governors of Oregon and Washington lists 34 days as the minimum time for shipment from Bangor to Hermiston. Assuming that the complete transportation facilities of the armed forces were utilized, it would probably take another two weeks to a month to clear the area, with a similar period for the return trip. Thus, we have a total period of two to four months for the complete process.

It would only be reasonable to assume that the army would be responsible not only for the transportation of people thus dislocated, but also for their food, housing, and emergency medical care. This would raise especially difficult questions in the cases of the elderly, infirm, hospitalized, and imprisoned individuals.

Of course, it would also be necessary to declare a state of emergency in order to close all public and private operations in the affected area and to provide protection against vandalism and looting.

There is also the question of the non-human population. Are the cattle, horses, sheep, dogs, cats, etc., to be moved also, or are they to be destroyed and the owners compensated by the federal government? This question is particularly important when applied to the Portland Zoo and similar collections of rare animals.

This raises, of course, the question of cost . . . and of who is to pay it. We have already touched on the cost of evacuation, food, housing, medical care, etc., but this is only a small portion of the total. For somewhere between two and four months, the economy of the Northwest would simply come to a halt. The question of who is to pay for lost business, lost paychecks, lost crops and livestock and similar items would be a major problem even in the event of no disaster during the

shipment. If the shipment should blow up (or otherwise contaminate a large area) the financial loss itself would be a disaster.

Related to this is the question of insurance. Would ordinary policies cover accidents, deaths or property loss during the evacuation period? Moreover, would they cover the resulting damage if some maniac blew up a train or is this a form of "civil insurrection" (not covered in many policies)? We feel these and related questions need investigation whatever the evacuation plans.

In the event of such a massive evacuation as would be necessary in this case, there would undoubtedly be a tremendous social disruption of the community. Crime in all its forms could be expected to flourish in the crowded temporary cities and in the deserted areas left behind. To hold this to a tolerable level would require a police force immensely larger than any available to the states. The only possible result would be a state of martial law enforced by federal troops.

These are some of the issues that must be faced if we are to use the only procedure available which can truly protect the population from death by nerve gas. The cost will be staggering in money, effort, the quality of life, and in life itself. Whether this price is a reasonable one for the country to pay to return a load of obsolete nerve gas to Umatilla is a decision that President Nixon must make, and live with.

Extracts from Department of the Army Technical Manual TM 3-220: "Chemical, Biological and Radiological (CBR) Decontamination" (6 July 1964)

13. g. Conservation of Effort. There are no easy short-cuts to chemical decontamination. Extensive logistical support, large numbers of personnel, and extended periods of time are necessary for the decontamination of equipment and areas. A decontamination operation must be planned carefully to insure that the best method of decontamination . . . is used.

39. Immediate or Emergency Decontamination. In removing nerve agents (G- and V-agents) from the skin, immediate and thorough action is necessary since these agents are quickly absorbed, and a small amount may cause death. . . .

42. Personnel Decontamination Procedures Personnel move to showers and, while holding breath, remove mask and undershirt, and put them in containers, and immediately enter shower. Starting with the head, they flush upper part of the body with water as thoroughly as possible before breathing is resumed. (For V-agent contamination, flush with copious quantities of cold water.) . . .

Common Decontaminants

17. Earth . . . Covering an area with about 10 centimeters of earth gives protection as long as the earth is not disturbed and the chemical agent exposed. . . .

18. Fire . . . Caution must be used when large contaminated areas are burned under inversion conditions. A dangerous concentration of . . . nerve agents may present a downwind hazard of up to 17 kilometers. . . . As heavily contaminated terrain

decontaminated by burning may retain much of its toxicity for a considerable time after the burning, the protective mask or other respiratory protective device and protective clothing should be worn by personnel in the area and immediately downwind.

19. Water. . . . (2) Disposal. Water used in decontamination operations is contaminated and must not be disposed of in areas where it might flow or be washed into streams or other bodies of water or where it might contaminate ground water used as a water supply. . . .

43. Terrain. a. General. Decontamination of terrain is accomplished to increase the length of time that personnel may stay in an area. Decontamination of terrain areas using standard decontaminants or other chemicals is not economically or logistically feasible. Decontamination may be accomplished by burning . . . or by other field expedient methods. Usually the most practical method is the use of earthmoving equipment to grade surfaces contaminated with chemical agents . . . e. Grass or Low Vegetation. Use one of the methods listed below: (1) Burning is the quickest and most efficient method of decontamination when a contaminated area is covered with grass or short undergrowth. . . . Normally, burning a contaminated area does not completely destroy the agent, and protective equipment (protective clothing and mask) will still have to be worn. However, personnel so equipped can stay in the area longer than they could prior to burning. . . .

45. Buildings and Building Materials

a. General. There is no effective method for the decontamination of porous building materials heavily contaminated with chemical agents. The agent is absorbed into the surface, and intimate mixing between the agent and the decontaminant is impossible. The only method for the decontamination of such objects is by burning. The contamination may be sealed inside the surface by using a heavy coating of slurry (containing super tropical bleach). Slurry, thus used, must be renewed at least every 24 hours. This procedure does not destroy the agent and does not make the area safe for unprotected personnel for indefinite periods of time but will increase the length of time personnel may remain in the building.

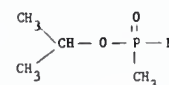
b. Wood. Wood is easily penetrated by liquid chemical agents. When wooden objects are heavily contaminated, decontamination becomes impossible and the object must be burned. . . .

c. Brick, Tile, Stone and Concrete. (1) Brick and Concrete are easily penetrated by liquid chemical agents.

NERVE GAS FACT SHEET ADDENDUM FOR PHYSICIANS, SCIENTISTS AND TECHNICIANS

1. Chemical, Physical Properties:

a. GB (Sarin)

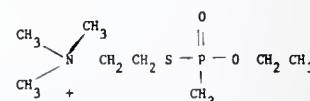


Liquid, d_4^{20} 1.10

isopropylmethyl-phosphonofluoridate

m.p. -57° , b.p. 760 147° , b.p. 16 56° . Miscible with and hydrolysed by water. (Ref. 1)

b. VX. Structure and properties are classified. Government descriptions seen to indicate one of the compounds whose synthesis was reported by Tammelin² (1958) in Sweden. (Ref. 2)



Methylethoxy phosphoryl thiocholine (33 SN +)

Methylethoxy - (2-dimethyl amino ethylthio)-phosphine oxide is the uncharged dimethyl amino form (33 SN) (Ref. 3)

For compound 33 SN:

liquid, d_4^{25} 1.07, m.p. (methiodide) 110° , b.p. 0.06 80°C , n_D^{25} 1.48 (Ref. 4)

2. Toxicology

a. Mice GB LD₅₀ 0.45 mg/kg

VX-33SN LD₅₀ 0.05 mg/kg (Ref. 3)

VX-33SN+ LD₅₀ 0.026 mg/kg

b. Man	GB LD ₅₀	0.28 mg/kg mouth (Ref. 5)	VX-like	2 mgm/man on human skin (Ref. 4)
		0.05 mg/kg eye (Ref. 5)		6 mgm/man - skin (Ref. 6)
		1.5 g/man skin (Ref. 6)		0.5 mgm-min/m ³ - inhalation (Ref. 6)
		5 mg-min/m ³ inhalation (Ref. 6)		

2

c. human erythrocyte cholinesterase (Ref. 3)

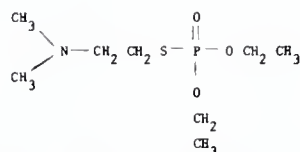
GB pI ₅₀ (molar)	8.8	VX-33SN pI ₅₀ (molar)	8.8
		VX-33SN+ pI ₅₀ (molar)	9.4

d. human plasma cholinesterase (Ref. 3)

GB pI ₅₀ (molar)	8.4	VX-33SN pI ₅₀ (molar)	7.3
		VX-33SN+ pI ₅₀ (molar)	7.9

3. Hydrolysis

a. alkaline	(Ref. 3)		
GB	25.8 liters mole ⁻¹ sec ⁻¹	VX-33SN	0.17 liters mole ⁻¹ sec ⁻¹
b. pH 7.5	(Ref. 3)		
GB	230 min = t _{1/2}		
c. skin homogenates	(Ref. 3)		
GB	125 min = t _{1/2}		
d. enzymatic hydrolysis	(Ref. 3)		



50-200 µg/hr/gm tissue in rat liver, rabbit, mouse, guinea pig.

Lower values in pig, cow, dog, frog.

Human, cat tissue homogenates showed very insignificant activity.

(Scaife, J.P. & Campbell, D.B. (1959) Can. J. Biochem. Physiol. 37, No. 2, 297.)

e. Absorption through cat skin (Ref. 7)

GB	18 µg/min/cm ² (showed stomach skin)
	90% detoxified in skin.

4. Symptoms (Not all may occur with any one patient)(Ref. 5)

GB (oral) 0.025 LD₅₀ no symptoms

0.16 LD₅₀ mild parasympathetic symptoms = anorexia, mild

abdominal cramps, excessive sweating; and central effects = excessive dreaming.

0.33 LD₅₀ anorexia, nausea, abdominal cramps, sweating,

epigastric and substernal tightness, tightness in chest, bradycardia, urinary frequency, dyspnea, muscle twitching, giddiness, tension, anxiety, excessive day dreaming with nightmares, depression, withdrawal, restlessness, emotional lability, tremors, miosis.

0.39 LD₅₀ as above with also vomiting, tenesmus, urgent loose

stools, fasciculations, pallor, prolonged expiratory movement.

higher undefined dose = severe bronchial secretion and salivation, appreciable bronchoconstriction, epileptic E.E.G. patterns.

Fatal and near fatal cases = paralysis of respiratory musculature, cyanosis, convulsions, Respiratory Center failure only occurred with doses well above LD₅₀. Coma appears at late stage after severe poisoning.

5. Therapy

Artificial respiration (positive inspiration) with O₂, atropinization, P2-AM, large volumes of fluids, postural drainage. Decontamination by washing. Prognosis is markedly more favorable the sooner the treatment is begun. (Ref. 5)

"Atropine should be given in heroic doses" Initial 2-4 mg. intravenously or intramuscularly, repeated every 3-10 minutes until muscarinic symptoms disappear. As much as 50 mg may be required the first day. [N.B. doses of 10 mg atropine in a nerve gassed normal man produce severe symptoms, even coma. The treatment of infants is especially difficult because of risk of hyperthermia.] (Ref. 8)

Praldoxime (PAM, P2-AM) dose is 1-2g intravenously at 500 mg/min. Repeat after 20 minutes if required. "Early treatment is very important, not only to overcome the effects of intoxication but also to assure that the oxime reaches the phosphorylated AChE while the latter can still be reactivated." ". . . All types of phosphorylated AChE undergo a fairly rapid process of 'aging', so that within the course of minutes or hours they become completely resistant to the effects of reactivators." (Ref. 8)

In addition Goodman & Gilman recommend some general measures of therapy. ". . . (1) termination of exposure, by removal of the patient or application of a gas mask if the atmosphere is contaminated, copious washing of contaminated skin or mucous membranes with water, or gastric lavage; (2) maintenance of a patent airway: (3) artificial respiration, if required, by mouth-to-mouth, mouth-to-nose, mask-to-mask, or mechanical techniques; (4) oxygen administration; (5) alleviation of persistent convulsions by trimethadone (1 g, intravenously every 15 minutes, to the maximum of 5 g) or sodium thiopental (2.5% solution, intravenously); and (6) treatment of shock." (Ref.8)

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ON DYSLEXIA

By Helen S. Whaley, M.D.

"Dyslexia" is loosely used to describe many reading and learning disorders within a population of poor readers, late readers, retarded readers, slow readers, near illiterates, hopeless spellers, and mirror writers. These disorders are being increasingly recognized and labeled in the setting of modern education in the United States, Canada, England, and the Scandinavian countries. MacDonald Critchley, the English authority on developmental dyslexia, defines dyslexia as a specific difficulty in learning to read, often genetically determined, which exists despite a level of general intelligence which is at least average; without any primary emotional disturbance or gross brain pathology; without significant impairment in hearing or in vision, and without any deficiency in conventional instruction. In ordinary circumstances, the difficulty persists to some degree in adulthood, and is associated with a peculiar difficulty in spelling.

The whole area of learning disorders is becoming paramount, both to the educator and to the physician caring for children, who is supposed to advise the educator. This year, the combined Alaska House and Senate Bill 500 redefined exceptional students within the State. Now included, in addition to the "mentally retarded", "physically handicapped", "emotionally handicapped", and "multiple handicapped", are two new categories — "children with learning disabilities" which includes those who exhibit disorders in one or more of the basic learning processes involved in comprehending or using expressive or receptive language; and "gifted".

During the past five years, the Alaska Crippled Children's and Adults' Treatment Center and Dr. Troy Sullivan, the Langdon Psychiatric Clinic, have provided direct service to children and adults and consultation to teachers and agencies in a logarithmically increasing fashion. The Anchorage Borough School District, in cooperation

with Alaska Methodist University, completed a multidisciplinary conference on Reading Disabilities on June 18-19. Headed by Stanton P. Thalberg, Ph.D., College of Education, University of Washington. This conference was attended by several hundred teachers who will serve as reading specialists and special education personnel.

The "Tyranny of labels" was considered by this group with general agreement that there is no optimum technique for instructing dyslexics or children and adults with language disorders. It was concluded that the varying teaching techniques should be tailored to the individual subject.

The JAMA emphasized the medical role for physicians in general in an editorial of June 1, 1970, 212:115, entitled "Is Dyslexia a Disease?" The conclusion was that practical aspects of this problem remain chiefly educational, with the physician's role being consultative, emphasizing avoidance of commitment to a single mechanistic approach. To further complicate the subject, the National Institute of Neurological Diseases and Stroke, National Institutes of Health, Department of Health, Education and Welfare, Bethesda, published in 1969 their ninth monograph on neurological problems of childhood with the formidable title "Central Processing Dysfunctions in Children: A Review of Research", emphasizing the semantic angles, with the final statement: "It would be regrettable if in the year 2069, two unsuspecting individuals were asked to review the research which has been conducted during the past 100 years. We recommend, therefore, that a more systematic procedure be devised which would provide for quadrennial interdisciplinary review of research in this problem area."

Dr. Harrison's article delivers some much needed basic information to the physician likely to be confronted with questions by often confused and misinformed parents and children.



DYSLEXIA IN ANCHORAGE

By Thomas J. Harrison, M.D.

"Danger — High Tension Wires"; "Impact Area - No Admittance"; "Delinquent for More than Fifteen Days a Charge of 15 Per Cent . . . Bank May Demand Immediate Payment"; "Caution, This Is a Highly Concentrated Cleaner Use Sparingly for Best Results," "If Line Fifteen A Is Under \$5,000.00 and Consisted of Wages Subject to Withholding and Not More Than \$200.00 of the Dividends, Interest,"; "Men"; "Women".

An individual who is unable to read and comprehend the above written statements and thousands more like them, be he janitor, nuclear physicist, business man or laborer is severely handicapped. Statistically he is more apt to drop out from school, be imprisoned, be on welfare or become a behavioral problem than is his fellow man who is able to comprehend the written word with ease.

Here lies an educational dilemma that is fast becoming a major concern of educators and physicians who are involved with elementary school children. It becomes the responsibility of these disciplines to be aware of and conversant in the aspects of reading and the barriers to its mastery. To this end, the following discussion is presented to define the problem of dyslexia and to list local sources for the management of dyslexia.

Dyslexia, a term coined many years ago was firmly established by the turn of the century and until recently required the definition of "resulting from brain damage." Only in the past few years has the definition been expanded (and distorted) to include all children with reading disorders.

The literature concerning dyslexia is vast — one estimate is over 20,000 professional articles¹² and its synonyms just as varied: Specific learning disability, specific language disability, congenital word blindness, mirror reading, strephosymbolia and many others. Of these terms, dyslexia is the least descriptive and, except for specific instances of brain damage, should be eliminated from usage. The terms "Specific Learning Disability" or "Specific Reading Disability" are superior and should replace Dyslexia as a descriptive term. Halverson³ classifies dyslexia simply into three categories,¹ **Specific developmental dyslexia**, an absolute or relative inability to read or gather information from printed symbols occurring in individuals, who have otherwise normal intelligence.² **Secondary endogenous dyslexia**, a true dyslexia caused by physical defect, i.e.: mental retardation, overt brain damage or diffuse minimal brain damage.³ **Exogenous reading disability**, resulting from some

environmental effect on the child which causes functional, psychological rather than physical, disability including poor teaching, cultural deprivation, emotional disturbances, etc.

The stereotype dyslexic, (specific developmental dyslexia) child — who like most stereotypes only faintly resembles the actual child presenting in one's office — is more often a boy, usually in the first three years of elementary school whose father or mother may have or have had reading problems. He may be a gross behavioral problem or, at best, is described as hyperactive or hyperkinetic. He is thought to be basically intelligent, but "doesn't apply himself". He reverses letters, numbers and words such as, "was for saw". He may write left-handed, kick right-footed, sight with either eye and may be clumsy in anything he does with either hand. He may be very good with mathematics, but unable to work story problems. His younger sister does very well and can read better than he. He is failing in school, failing at home and is making the rounds of doctor's, psychologist's, and optometrist's offices. Such a child, (not at all uncommon to those of us involved with visual medicine) is subjected to tremendous pressures. It is not at all surprising that specific reading disability has been found to be a major contributing cause of delinquency between ages 16 to 19 years of age. This stereotyped child is the "hard core" reading problem, one where the etiology is unknown and therapy frequently difficult.

Secondary endogenous dyslexia can include the following, which should be of special concern to us as physicians:

1.) **Emotional and Psychiatric:** These factors may rarely be etiological or more often are superimposed on almost any case as a result of a reading inability

2.) **Intelligence:** Marginal intelligence is usually manifest by failure in all learning skills and is quite distinct from a specific reading disability.

3.) **Brain Damage:** Anoxia, prenatal trauma and disease may result in a specific reading disability. Adult cerebral vascular accidents, can result in aphasia, dyslexia, etc. Some is written about "soft" neurological signs (subtle mental disorders without localizing value.) Obviously these soft neurological signs are very difficult to evaluate and the problem of the poor reader remains, whatever the neurological cause. This is not to suggest that history concerning prenatal and perinatal disease is not important; on the contrary, it can occasionally be diagnostic.

4.) **Visual Disfunctions:** The importance of

low degrees of refractive error has been greatly exaggerated, as are muscle imbalance and strabismus. ^{25,25,2} Not at all uncommon is a child with an obvious visual defect of 20/100 who can read with good facility. Farris concluded, from a study of 1685 pupils, that visual acuity has little effect on reading ability. It has been my personal impression that the commonly tested visual parameters of acuity, muscle balance, fusion, etc., are all normal in most dyslexic children.

Recently an editorial from "Dyslexia Study Association", reported the results of a questionnaire from members. The article revealed that visual acuity, refractive error, fixation behavior, duction, the four prism response, fusion range amplitudes, stereo acuity, near point of accommodation, and near point of convergence are all insignificant factors in the cause of reading disability. ³

Once the obvious exogenous barriers to learning are eliminated, the approach is the dyslexia child must be a positive one and optimistically should be within the scope of the educational system. However, it is our responsibility as physicians to protect children and parents from the opportunist who derives economic gain from dyslexia. ^{24,17} With these facts in mind I will consider current popular concepts in the treatment of dyslexia that have little or no empirical basis.

1.) Cerebral Dominance, A series of articles have been published and a great deal of work done relating dominance to reading disorders. ^{1,29,28,16}

Most people are dextrads, 6% are synstrads. The majority of people are right handed and right eyed, a few are mixed, that is right eyed, left handed: left eyed, right handed. A differential between the sighting eye (that eye through which we sight a gun, use a telescope, etc.) and the controlling eye (that eye which in binocular activity assumes control or initiates binocular activity) is frequently made.

If one looks at diagonal lines running from top to bottom — left to right with one eye and diagonal lines running from top to bottom right to left with the other eye, a perfect grid will not be appreciated. This phenomenon is called retinal rivalry. Rather a portion of each set of lines will be comprehended. The eye that is dominant, or sees the greater share of its lines, is considered the controlling eye. Evidently there is a correlation between dyslexia and mixed dominance in respect to the controlling eye, but not to sighting eye. (30) The sighting eye is more closely related to visual acuity of refractive error.

A good deal has been made of this finding and accompanying theories for treatment consisting of switching dominance by eye patching. Three aspects of dominance make it attractive as a mode of therapy. (A) There is an apparent correlation

between dyslexia and mixed dominance, (Associative if not etiologic). ^{28,29,30} (B)

Dominance is easily determined by a lay operated instrument, the telebinocular. ²⁸ (C) Dominance is treated by eye patching, a non-prescription form of therapy. In opposition to this treatment is a recent article on dominance by the original publisher, Dr. Curtis Benton, who refutes his previous stand and contends that the testing for dominance in dyslexic children is of no value in routine reading evaluations. Other articles are being published which substantiate this finding; e.g.: the general consensus of opinion in current ophthalmological literature is that there is no empirical improvement brought about in language skills by switching the controlling eye.

2.) Patterning: Glenn Domman, RPT and Carl Delacato, EDD, of the Institute of Human Potential in Philadelphia, proposed the hypothesis that failure to pass properly through a certain sequence of developmental stages in mobility, language and tactile areas causes poor logical organization. ²⁹ The basis for their hypothesis is the old adage that "ontogeny recapitulates phylogeny." Their theory is that repatterning of the neurological organization by improving mobility patterns i.e.: creeping, jumping, etc., leads to improvement in verbal and language skills. The Domman-Delacato techniques of perceptual motor training have been widely used in private clinics and public schools. Anchorage has had a particularly active program: ^{9,10} Two excellent articles in the *Journal of American Medical Association* and several others, indicate that these techniques are not supported by empirical evidence. ^{7,22,3,8,11,13,15,18,19} Well

controlled studies using these methods show no improvement in reading skills. Undervalued (or overlooked) in the Domman-Delacato technique are the therapeutic aspects of the Child-Teacher relationship, loving concern, involvement, one to one teaching, adjunctive remedial reading, etc. It is the rare child that will not respond to such a training ratio of one to one with or without neurological patterning.

The resources available for reading problems in Anchorage lie principally within the public school system, and are currently expanding in both quantity and quality. The following are some of the programs incorporated within the public school system.

1.) The Anchorage school system employs a reading specialist at large who oversees the teaching of reading in the grade and high schools. She and her staff provide special programs of new material and reading testing.

2.) A state funded pilot reading program

under the auspices of Special Education is being developed in the Hubbard School and incorporated ten students. This program will be expanded to five central areas in the near future, depending on funds.

3.) A federally funded program in reading disabilities, TITLE I, has been implemented in six Anchorage Borough Schools, 2 high schools, 1 junior high, 3 elementary schools. Title I incorporates professional workers with lay workers and chooses the student participants from low income areas. One of the outstanding aspects of this program is the reading laboratory at Central Junior High School. Severe reading defects are discovered by a screening reading test. Students are given intensive reading training using equipment that is based on multiple sensory input for reading education.

4.) A PHD in reading problems from the University of Washington will conduct an inservice training program this summer for 40 Anchorage teachers using 240 students. Other reading seminars are planned for this summer which incorporate local reading educators.

5.) AMU has instituted a Masters Program in reading education. Children participating in this program will benefit from being the educational material in the program and such a program will introduce better educated teachers into the Anchorage School System.

6.) Alaska Crippled Children Association has a reading specialist to work in the area of specific reading disabilities. Children who have been referred to ACCA following a complete workup have access to this avenue of reading education.

The major area of concern in reading education, based on my experience and the admitted concern of the educators, is the child with serious reading problems in the first thru third years in grade school. Presently the classes are large, frequently 25 to 30 students eliminating much concentrated individual help. More disturbing yet, is that some children with severe reading handicaps escape recognition until junior high or later.

There are few resources available to parents of these children and with the exception of the programs outlined above they have no access to public school remedial reading. Private clinics are available, but in many cases prohibitively expensive. One Anchorage psychiatric clinic has a reading specialist for severe cases of dyslexia, Optometrist's clinics have reading training programs, but are expensive and based on non-empirical methods of eye exercise and patterning. The hope for these children with specific reading disabilities in the first years of school lies (1) early identification by alert teachers

and parents. (2) Adequate teacher training in the principles of reading education. (3) Referral of difficult cases for specialized reading training at an early age before failure and frustration affect the child's entire educational process. Specific reading disabilities are an educational problem and do not belong under the care of medical or para-medical personnel. The physician's duty is to (1) eliminate exogenous barriers to learning (2) provide parents with referral service (3) protect parent and child from the opportunist who benefits from the monetary side of dyslexia.

The OPHTHALMOLOGIST: January - February 1970, published a position statement concerning dyslexia taken from the report of an international dyslexia seminar sponsored by the institute for Development of Educational Activities, Inc., (an affiliate of the Charles Kettering Foundation). The full report is available on request. The summary of this statement so nicely describes the ophthalmologist's attitude and approach to Specific Reading Disorders that it is presented here in its entirety.⁸

"1. Not enough objective scientific evidence yet exists to prove that perceptual motor training of the visual system can significantly influence reading disability.

2. In coping with dyslexia, ophthalmologists should be involved in an interdisciplinary approach, which ideally consists of an educator, ophthalmologist, pediatrician, and psychologist with available consultation from a neurologist, psychiatrist, reading specialist, audiologist, and social worker.

3. Eye care should never be treated in isolation when the patient has been referred with a reading problem.

4. The belief that eye dominance can be at the root of so profound and broad a human problem as reading and learning disability is both naive, simplistic, and unsupported by scientific data.

5. Latent strabismus may be associated with a reading disability in certain individuals. This may be treated according to the doctor's own ophthalmological principles, but it is significant to the learning problem only in improving reading "comfort or efficiency".

6. Eye glasses, including bifocals, prescribed specifically for the treatment of dyslexia have not proven effective.

7. Just how children with reading disabilities

should be taught is a technical problem in educational science, which lies outside the competency of the medical profession.

8. Educational research is needed in the correction and prevention of reading disabilities.

9. Children with reading disabilities, once diagnosed, should be removed from the milieu where accepted methods of teaching are practiced, in order to give them special instruction along **totally** different lines.

10. The percentage of dyslexics within the community has been overestimated by some writers. Others have underestimated the magnitude of the problem. Regardless of the actual figure, reading disabilities among children are grave enough and sufficiently important to justify official recognition.

11. A national commission should be established to review research presently available and identify specific areas for further work in the scientific as well as the educational area."

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CLASSIFIED AD SECTION

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HYPERTHERMIA IN THE OPERATING ROOM

By Grace Jansen Hoeman, M.D.

Overheating of patients during surgery has been observed since the advent of general anesthesia. In severe cases convulsions would occur, and thus the term "ether convulsions" was coined, a term familiar to all of us. These convulsions were seen in pyrexia and toxic children after prolonged ether administration in a warm environment and were attributed to the agent, increased metabolism and oxygen lack. Ether convulsions, puzzling as they once were, can now readily be produced in experimental animals.¹

More recently the airconditioned operating room caused a shift of interest from hyperthermia to hypothermia, as inadvertent cooling occurred, particularly in the young or very old patient. Also, techniques of deliberate hypothermia were developed to make possible or facilitate intricate neurosurgical and cardiovascular procedures, and, for a while, hypothermia moved to the forefront of medical interest.

In the 1960's the pendulum swung again in the opposite direction. Reports of a new syndrome "malignant hyperpyrexia in the operating room," originally described by Guedel in 1952, began to appear in the medical literature. This syndrome characteristically evolves in a previously healthy patient during surgery, and, in a nutshell, consists of rapidly increasing body temperature, generalized muscle hypertonicity, and acidosis. The case fatality rate of the syndrome is high. Reported cases now number far over 100. All age groups are involved, although the young men are more frequently stricken.^{2,3}

Several cases of hyperthermia have occurred in Alaska during the last few years. I have selected three for discussion. None of these can be classified as "fulminating hyperthermia", but two carry elements of the syndrome and afford an opportunity to highlight the problem of hyperpyrexia in general, and malignant hyperpyrexia in particular.

Case No. 1: A diagnosis of appendicitis was established in a 15 year old girl and appendectomy scheduled. Her rectal temperature was recorded as 104 degrees F, and routine measures to reduce it were begun at once, including a cooling blanket. After 1-1/2 hours her temperature was 102 degrees F she was moved to the operating room and again placed on the cooling blanket. Her temperature was monitored continually by telethermometer during surgery. During the hour long procedure her temperature fell from 102 degrees F to 100 degrees F. The postoperative course was uneventful.

Case No. 2: A 12 year old girl was admitted to hospital with a diagnosis of possible appendicitis. After a few hours observation her temperature rose to 105 degrees F and her white bloodcell count was 12,000 with a shift to the left. Appendectomy was felt necessary. Prior to surgery her temperature was apparently checked, but not recorded. Premedication was with meperidine, 40 mg., vistaril, 40 mg., and atropine, 0.4 mg. Induction of anesthesia was with sodium penthotal, with tracheal intubation facilitated an intravenous dose of succinylcholine. Maintenance of anesthesia was with sodium penthotal, intravenous, and nitrous oxide by inhalation. Toward the end of the procedure generalized muscle rigidity was observed and the surgeon complained of tightness of the abdominal wall, which was not relieved by additional succinylcholine administration. Postoperatively the child did not resume normal spontaneous respiration and was manually ventilated. A low choline-esterase blood level was suspected, but ruled out. She did not regain consciousness and with a diagnosis of brain damage, was transferred to Anchorage for further treatment. Her temperature upon admission here was 98.6 degrees F, her blood pressure low (60/40 mm. Hg.). Laboratory studies indicated acidosis, renal failure, and low oxygen saturation. Her condition steadily deteriorated despite vigorous treatment and she expired less than 70 hours after her original hospital admission.

Case No. 3: A 57 year old man underwent an exploratory laparotomy for possible cholecystectomy, during which the gallbladder was not found and assumed to be intrahepatic. Definite surgery was postponed in order to obtain more laboratory and X-ray studies. The anesthetic was routine and the postoperative course satisfactory with temperature elevations not above 100 degrees F. Four days later the patient was brought back to surgery for cholecystectomy, after premedication with meperidine, 75 mg., and atropine, 0.4 mg. His temperature immediately preoperative was recorded at 98 degrees F, yet he felt warm and it was decided to monitor his temperature during the procedure. Probes were placed and initial readings obtained—his rectal temperature was 99.6 degrees F. After intravenous sodium penthotal induction of anesthesia, and tracheal intubation with the help of intravenous succinylcholine (no muscle hypertonicity observed) his temperature rapidly rose to 106 degrees F rectally. The almost completed surgical prep was halted and surgery cancelled. Patient was placed on a hypothermia blanket and ventilated with 100% Oxygen. He regained consciousness without much delay. He was given approximately 90 meq of sodium bicarbonate intravenously. One hour later, his temperature was 105 degrees F and continued to fall gradually. Pulse frequency was never above 120/minute. Five hours later his temperature had returned to 99 degrees F, his pulse to 84/minute. Patient decided against further surgery and was discharged after an uneventful course in the hospital.

The first case illustrates the common routine of reducing the temperature of febrile patients before they are subjected to anesthesia and surgery. The second case demonstrates the possible outcome in a case when emergency surgery is performed in a toxic and hyperthermic patient. The third case conveys an impression of the speed with which hyperpyrexia can develop in the operating room. Had the last patient not been

monitored continually, this complication might well have terminated in death.

The typical malignant hyperthermia syndrome develops rather abruptly during or shortly after surgery. Fever is preceded by tachycardia, tachypnea and hyperpnea. There is hypertonicity of voluntary muscles, which in some instances occurs immediately after succinylcholine administration. Acceleration of muscle and liver metabolism ensues, with an enormously increased but largely unmet oxygen demand, and increased carbon dioxide production. Metabolic and respiratory acidosis exist from the onset and worsen acutely. In the advanced stage there is a release of potassium from the cell to the extra cellular fluid. Cardiac standstill occurs when the bloodlevel of potassium reaches high values. Myoglobin also escapes from the anoxic muscle cell and eventually appears in the urine. Likewise there is hemoglobinuria. Shock follows and preterminally there is a failure of bloodclotting. In short, a picture of gross cell function derangement. Death resulted in about 70% of reported cases. ^{4, 5, 6, 7 and 8}

Theories were evolved to explain all this. Considered were a breakdown primarily of the central temperature regulating mechanism, and a breakdown located mainly or totally in the periphery. The modus operandi in the central theory was believed to be interference with the function of the temperature regulating amines nor-epinephrine and 5-OH tryptamine.⁹ More plausible, however, seemed a disturbance in the energy transport system of the peripheral cell, caused by direct action,¹⁰ i.e. a breakdown of oxidative phosphorylation, which prevents the formation of adenosine triphosphate, (A.T.P.). Cell mitochondria form A.T.P. from adenosine diphosphate (A.D.P.), and inorganic phosphate through an intermediate compound. The energy for this is provided by respiration through electron transport mechanisms. When mitochondrial structures are damaged, degrading of this high energy compound, called uncoupling, takes place. Energy storage by A.T.P. is prevented and thus energy must be lost as heat. A self perpetuating process of overheating is set in motion. This is now the favored theory to explain the syndrome. Genetically determined abnormalities of the muscle cell would fit into this theory and explain the familial occurrence of the syndrome in some cases.

How far is malignant hyperpyrexia a truly new syndrome? What triggers the reaction? What damages the mitochondrial structures? Gatz and Jones¹¹ have demonstrated that halothane, cyclopropane, methoxyflurane and chloroform cause fulminating hyperprexia when given to dogs that are pretreated with small doses of an uncoupling agent, 2, 4 dinitrophenol, (D.N.P.).

They also found that chlorpromazine (thorazine) can cause uncoupling, and dogs pretreated with it and then exposed to halothane will develop hyperpyrexia. Equalling interesting, haloperidol, when given before the D.N.P. and anesthetic agent sequence, exerted a protective influence. Pretreatment with D.N.P., however, was necessary in this experimental design to produce truly malignant hyperthermia. Translated into clinical circumstances this means that another factor besides uncoupling and anesthetic agents must be at work, as D.N.P. is never used clinically.

Details of some reported cases suggest that anesthesia was continued under questionable circumstances or begun under adverse conditions. For instance, a 6 year old girl who came to the operating room heavily premedicated with a pulse rate of 160/minute might have had startling blood gas findings, motivating cancellation of the case. Instead, surgery proceeded as scheduled and the child became hyperpyrexia. In another case, after anesthesia induction, a 25 year old healthy man developed a persistent tachycardia and tachypnea, which were allowed to continue till the patient's temperature was found to be 110 degrees F and irreversible cell damage had occurred. In both cases suboxygenation may well have been allowed to go uncorrected for a period sufficient to set the stage for malignant hyperpyrexia.

Many new drugs come on the market and are used as premedicants. Some of these have already been shown to have the property of uncoupling oxidative phosphorylation, and are capable of promoting the reaction leading to fulminant overheating. When further progress in anesthesiology makes continual and accurate monitoring of parameters, such as carbon dioxide tension and oxygen saturation, technically and economically feasible, our insight in this problem will improve. It is then that we shall be able to judge the influence of suspected genetic factors.

Early treatment, before irreversible cell damage, is mandatory. Immediate cooling of the patient is of paramount importance. Large doses of sodium bicarbonate are necessary to combat acidosis. Ventilation should be with 100% oxygen and controlled when needed, with supportive therapy such as steroids, mannitol, glucose and electrolytes, as indicated.

For prevention, Papper,¹² in a recent article, recommends among other measures development of a protocol. Cases should be cancelled when certain symptoms occur: for instance muscular rigidity after succinylcholine injection, or unexplained tachycardia prior to surgery. Temperature monitoring should be done in all major cases. Unexplained incorrigible deviations from accepted normal values of bloodpressure, pulse and temperature during surgery should be brought to the surgeons

attention, so that the procedure can be terminated in haste. No patient should ever be operated on with a temperature higher than 102 degrees F. To all this should be added a person at the head of the table with a high index of suspicion.

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BOOK REVIEW SECTION

ON THE FEDERAL ROLE IN HEALTH — 1970

An obese but enlightening manual was recently sent to Alaskan Physicians, courtesy of U. S. Senator Ted Stevens. Entitled "Federal Role in Health—1970" it is an official review of the overall impact of the many federal agencies involved in health care. The short introduction and commentary sections preceding and following the indigestible bulk of agency reports are worthy of review.

It is apparent that federal health planning and expenditures have been (and continue to be) poorly coordinated and sometimes even competitive. Interestingly enough, none of the many agencies involved has set an overall health goal. In addition the categorical health grants, a usual and customary method of dispensing federal funds in bolus form, have often caused competitive dislocation of health personnel from less well funded but possibly more important careers. *Thus the major movement of medical school graduates into abstruse and often non-productive clinical research projects can apparently be traced to such categorical and restrictive approaches to health problems, and current shortages of clinical health personnel are partly due to such federal funding.*

One cannot but agree that greater coordination, direction, and expertise are essential in the regulation of expenditures of the federal health dollar. These facts, however, hardly support the additional conclusion that private medical practice should come under more direct federal control. Admittedly, private medical practitioners are often scarce and generally distributed in proportion to the public's ability to support them. In addition physicians, for some reason, have generally tried to select reasonably pleasant and safe areas to live and practice in.

Possibly the federal government should place its major emphasis on improving the education, living standards, and purchasing power of those needing health care, plus the experimental development of supplementary mass care outpatient programs for those groups to whom adequate medical care is not currently available. Certainly it would be wise to avoid major disruptions of the only effective nationwide health care delivery system, that is private medical or "fee for service" practice. Even now many overworked physicians are unable to see all patients desiring their services. In this period of the three day weekend and the coffee-broken eight hour day, an amazing decline in productivity and available patient care hours will follow if the physician is placed on a salary. One can readily anticipate a mutual attitude between physician and government of "and that's all you'll get".

After documenting so clearly the inadequacies of present federal health care programs, one must hope that a successful effort to put these multibillion dollar programs in order will precede any attack on the little guy providing the care. — A.v.H.

*See also Research in Britain — A non-weeping formula for living on tight funds by D. S. Greenberg, Science 167: 1596-8 20 March 1970.

**One can in fact argue that after five to ten years in pure laboratory research or administration, an M.D. should no longer be listed as such. This would certainly provide a more accurate estimate of the number of qualified clinicians actually available for patient care.

NEUROLOGY

Bing's Local Diagnosis in Neurological Diseases, by Webb Haymaker, ed. 15: 600 pp, 395 illus. \$32.50. St. Louis, C. V. Mosby Co. 1969.

This fifteenth edition published twelve years after the previous edition in English, encompasses a remarkable era of experimental and clinical advances in the neurological sciences. As many neurological problems are chronic, they have also achieved an increasingly significant percentage of medical practice generally. Previously, many of these diseases were eponyms with unique signs and symptoms. The multiplicity of now understood metabolic cycles, chemoanatomical pathways, neuropsychiatric biogenic amines, and neurophysiology, and the many drugs specifically devised, involve all areas of medicine.

To include and inter-relate this new knowledge. Dr. Haymaker has rewritten the entire book and added chapters. The volume is a succinct and very current review of neuroanatomy, neurophysiology, neuropsychiatry, and neurochemistry as they are now understood. Many of the references include the definitive studies, as well as a multitude of 1965-69 literature. A valuable aid is the summaries which tie very often complex and difficult details into cogent wholes.

Areas of the nervous system which currently are being investigated intensively, the thalamus and basal ganglion system in Parkinsonism (recent release of L-DOPA), hypothalamus, and limbic system and behavior; cerebrovascular diseases; and the role of the many newer diagnostic techniques such as radioactive isotope scanning are treated in depth.

The writing is succinct and smooth, often making it necessary to review the page several times, with further avenues of information being provided by a very generous, meaningful bibliography. The illustrations clarify and synthesize the information further.

This book is highly recommended for any physician who is interested in clinical neurology, as well as the underlying scientific rationale. — Helen Whaley, M.D.

VASECTOMY

By Donald R. Rogers, M.D.

The incidence of vasectomy appears to have increased rather markedly following the recent sensationalized hearings on birth control pill risks by a U. S. Senate Committee. Certain misconceptions and risks persist in this simple and common procedure, as the following experiences illustrate. The structure in Figure I is an artery, submitted as "vas" by a competent surgeon. Fortunately he always assures himself and the patient that the vas was indeed interrupted. (A reasonable alternative to histological verification of all vas interruptions might be storage of a removed segment of the duct until repeated semen analyses have been negative).

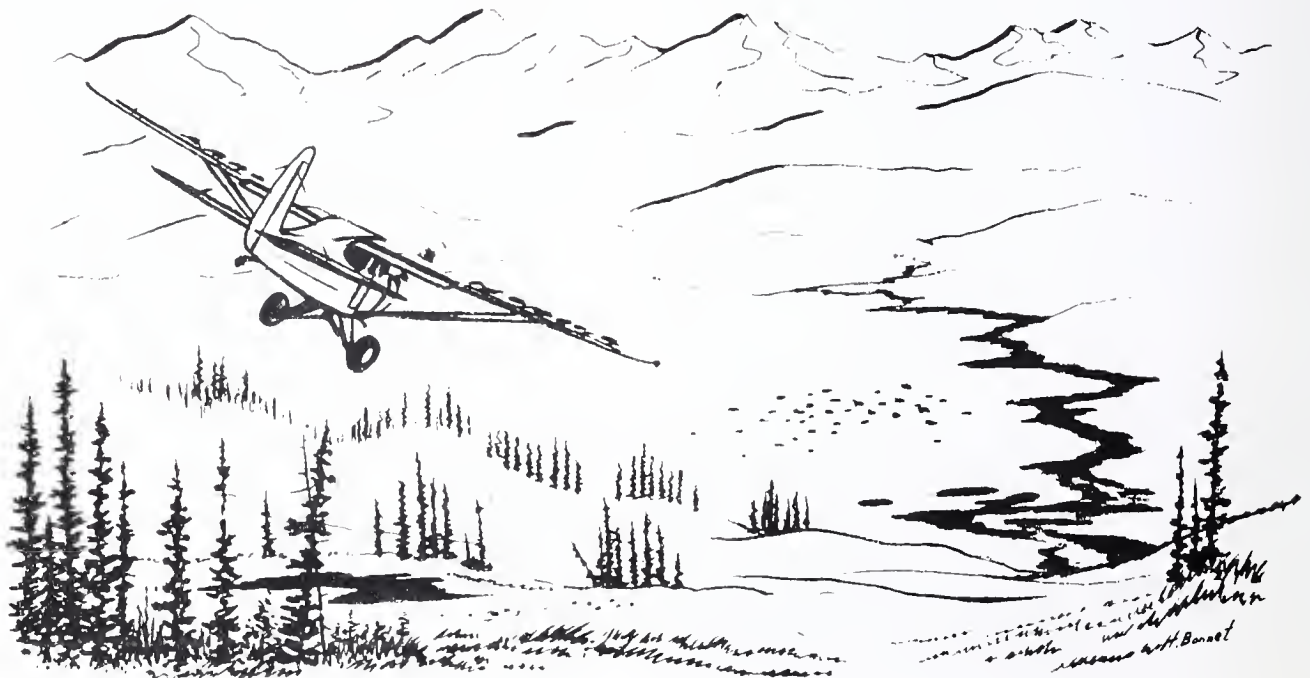
Figure II illustrates "recanalization", a late complication of initially successful vasectomy. Occasionally channels develop between the severed ends of the vas, perhaps via lymphatics, allowing re-establishment of patency. This writer has seen two recent examples of this problem, one of which led to a still pending lawsuit.

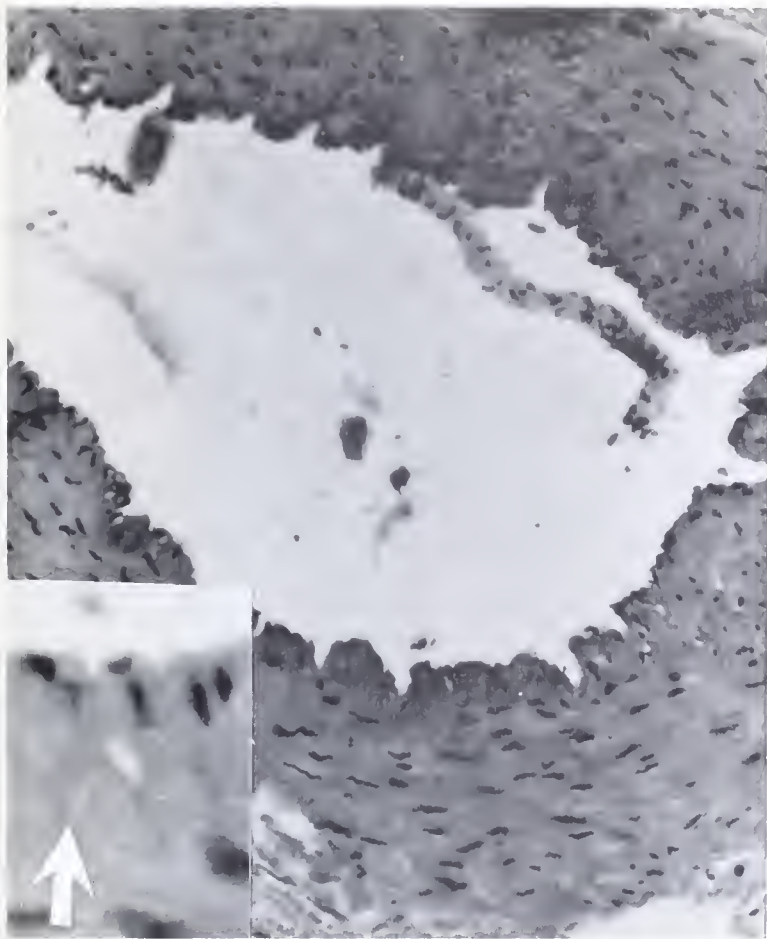
The writer has heard of competent physicians, including urologists, assuring post-vasectomy patients of sterility immediately after completion of the procedure. All such patients should have semen analysis two weeks after the procedure and after several ejaculations. The presence of even a few active spermatozoa indicates unsuccessful ligation. The lawsuit mentioned above occurred because a physician assured sterility in the presence of a sperm count of only 60,000 per cc., a very small number to be sure, but an unwanted pregnancy resulted.

The most unfortunate aftermath of an unexpected pregnancy is accusation by the husband of infidelity. Broken marriages have occurred because of bitterness engendered by such pregnancies. The writer recently had occasion to inform a very anxious man of a normal sperm count obtained after his wife's conception. The facial expressions and subsequent guarded discussion left no doubt about the level of marital strife.

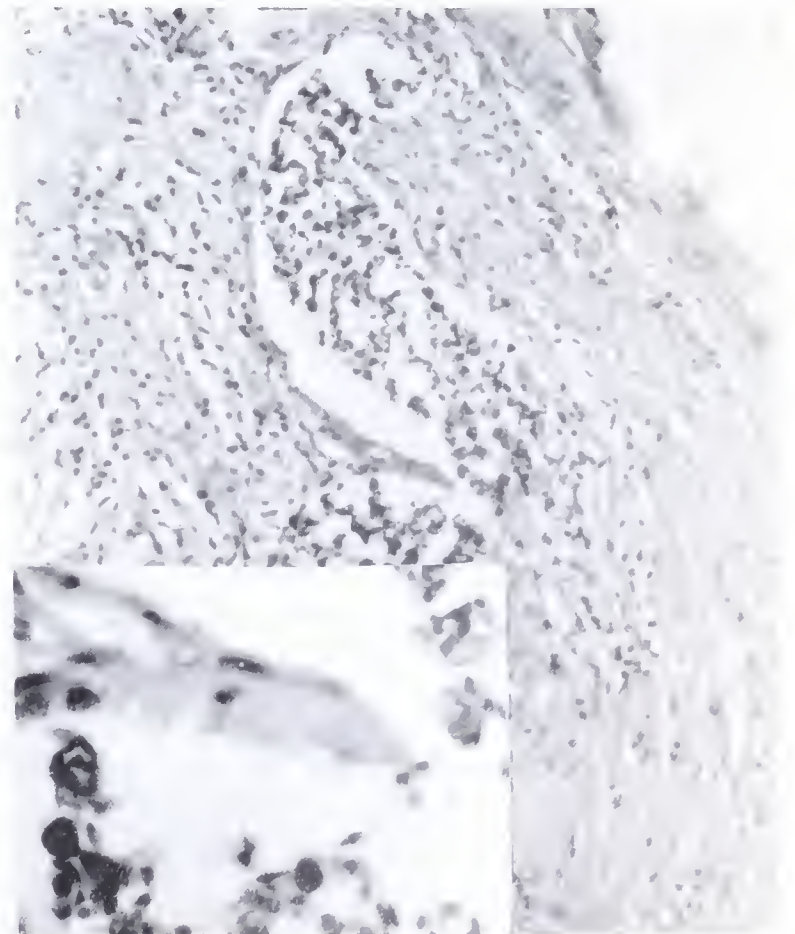
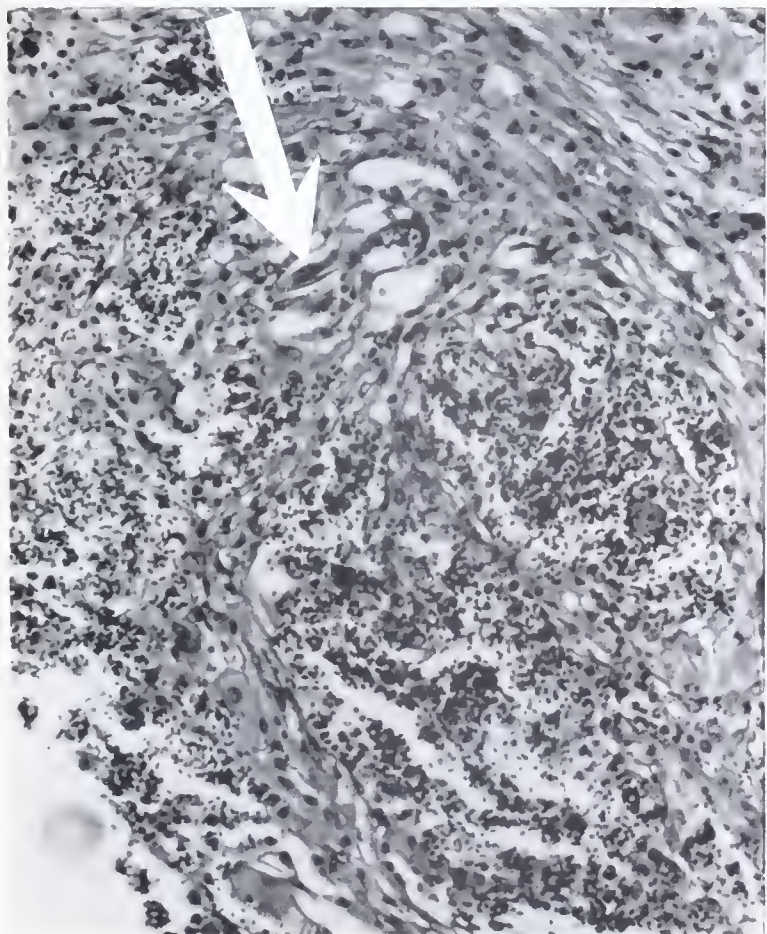
From the legal standpoint, the risk to the physician seems to be small. Courts have repeatedly held that birth of a child is a "blessed event", and to hold a physician liable for such a birth is contrary to sound public policy. Some cases have been tried on the basis of breach of contract but settlements have been very small, amounting essentially to refund of vasectomy fee and/or repetition of the procedure. It should be noted that the suit referred to above resulted because of a certain amount of truculence on the part of the physician and his refusal to repeat the procedure.

In summary, all vasectomy specimens should be identified microscopically. All postoperative patients should have semen examinations, and spermatozoa, even in the most minute numbers, should not be ignored. If failure occurs, the physician should willingly repeat the procedure. Finally, couples should be warned of the possibility of late recanalization and reminded that pregnancy does not necessarily mean infidelity.





(Left) Small artery, (inset) — note internal elastic lamina. (Right) normal vas deferens for comparison.



(Left) Masses of viable spermatozoa within foreign body granuloma. Note suture material at arrow. (Right) Spermatozoa within lymphatic.

3

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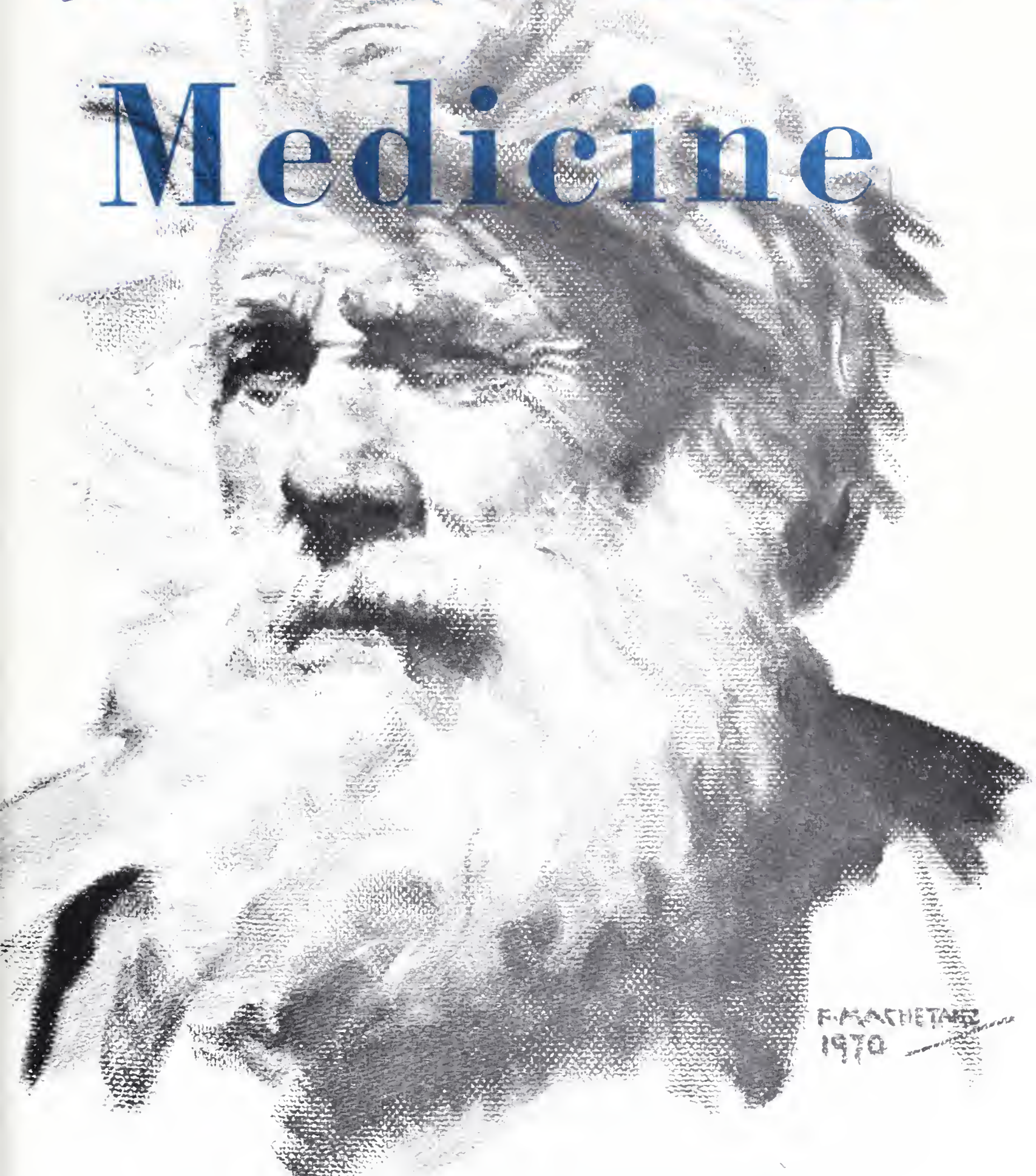
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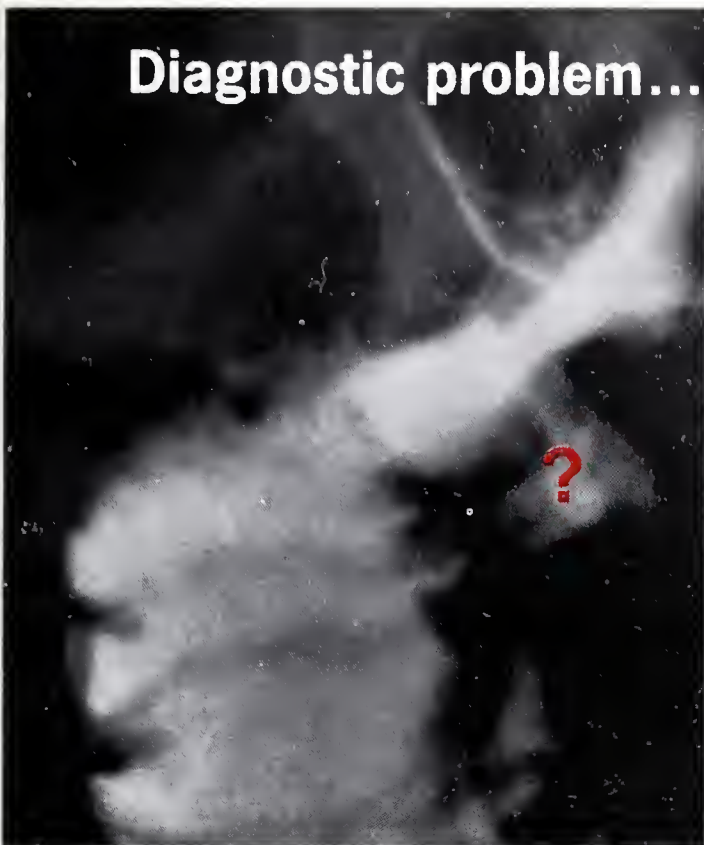
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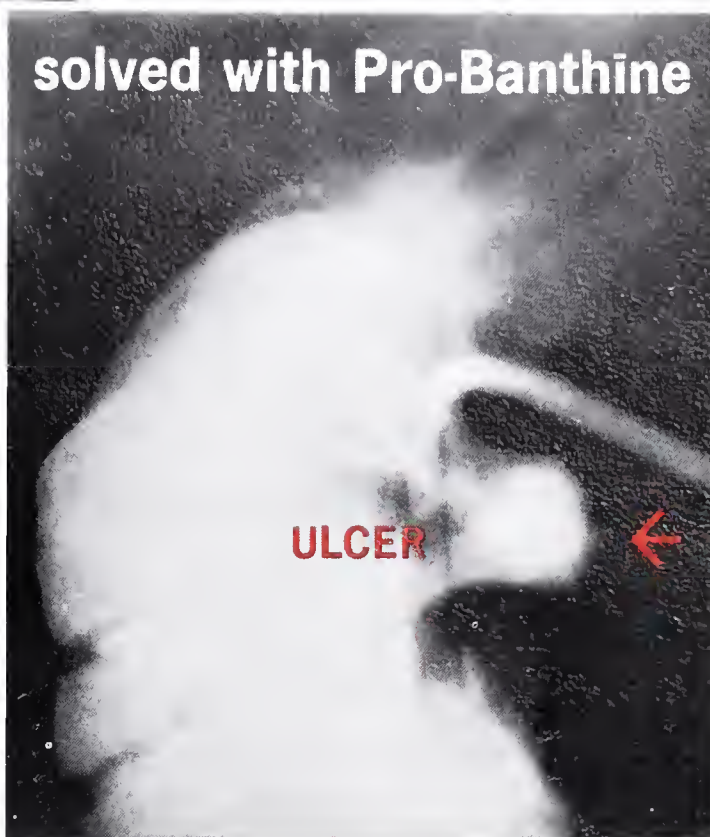
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We wish to thank Drs. Marcia K. Bilbao, Louis H. Frische, Josef Röscher and Charles T. Dotter for this exceptionally graphic example of hypotonic duodenography.

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982

SEARLE Research in the Service of Medicine

LETTERS TO THE EDITOR

Dear Sir,

Greetings from smoggy California. I hope that you all appreciate the clean, crisp Sitka air which we miss so badly.

In the nature of an update of my credentials so far as my continuing staff appointment at Sitka Community Hospital is concerned, I would like to summarize my experience since leaving Sitka three years ago. Most of you will recall that I was not required to complete an entire orthopedic residency program to qualify for boards, based on pre-existing general surgery boards. I therefore chose to affiliate with the Orthopedic Program at the University of Southern California under Dr. J. Paul Harvey, Jr. Six months of this time has been spent at Rancho Los Amigos Hospital, which is a large rehabilitation institution which is also among the nation's tops in the field of bioengineering. I also spent six months at Los Angeles Orthopedic Hospital in children's orthopedics where there is a large tumor service. As of January 1, 1970, I became a candidate for the certification examination in Orthopedics which will be given in January of 1972. July 1, 1970 I accepted an appointment as an Assistant Professor in Orthopedics at the University of Southern California and a member of the Attending Staff for the Los Angeles County-USC Medical Center. I am staff director at one of the trauma services here, and in the process of setting up an orthopedic oncology service, and have the administrative responsibility of developing an orthopedic assistants training program in the paramedical field. I am also on the Attending Staff at Rancho Los Amigos Hospital and am in the division of biomedical engineering and myo-cybernetics, working in the kinesiology laboratory. Although we all miss Sitka and I miss my relationships with Sitka Community Hospital and with each of you, I have enjoyed this step immensely and have found it intellectually stimulating. I am obviously having a ball and intend to stay in the field of academic medicine for the moment. If in this manner I can help alleviate the increasing shortage of orthopedic care in this country, I feel that my time will have been well spent.

We are happily situated in a suburb of Los Angeles, not too far from Disneyland, and have enjoyed visits from Dr. Spencer and his family. If any of you are in this region please call and let's see if we can get together.

Thanks and best wishes to all.

Sincerely,

Tillman M. Moore, M.D.

Assistant Professor

Department of Orthopedic Surgery

Dear Sir,

A major shortage of professional health workers exists, although opinions vary on whether we need more physicians, nurses, paramedical personnel, or all of these. Some even question whether the shortage is actual or secondary to poor utilization of existing resources.

The training and utilization of paramedical personnel has been the subject of much thought. Several training programs are underway with more proposed. Unsolved problems of recruitment, education, distribution, financing, licensure regulation and control of such personnel are the basis of the following proposal for a private non-profit Health Manpower Corporation.

This Corporation would have as its purpose and responsibility the provision of paramedical personnel to consumer groups such as villages or small communities, industrial camps, oil drilling sites, salmon canneries or lumber camps. The corporation would further be responsible for recruitment, distribution, supervision, regulation, and when necessary, discipline. It could employ, as paramedical personnel, existing community health aides LPN's RN's, or returning military medical corpsmen. In future times it might develop its own training programs in conjunction with the state university.

Hopefully, the board would represent the health professions and consumers, with the advisory board composed of representatives from The Alaska Municipal League, the salmon industry, the oil industry, the lumber industry, the Alaska Federation of Natives, or communities utilizing paramedical

personnel. Indeed, it might be feasible that each village or community utilizing the corporations' services would be entitled to representation on the advisory board, thus promoting effective local control and participation.

This advisory or directional board would be primarily responsible for establishing policy and developing programs in tune with local needs and wishes, while an operating board consisting of representation from the United States Public Health Service, the Alaska Department of Health, the Alaska Hospital Association, the Alaska State Medical Association, the Alaska Dental Association, the Alaska Nurses Association, and the University of Alaska would be primarily responsible for operational procedures and policies.

Initially, such a corporation could be funded by state, federal, or private grants. However, the corporation should eventually become self-sufficient by appropriate charges for services provided. The communities requesting a medic would be charged a sum to cover wages, plus supervisory, educational and administrative services. In some villages this charge might require state or federal subsidy. Larger and more prosperous communities or industrial users such as oil camps could be charged appropriately.

Such a corporation would have several advantages:

It would eliminate many intrinsic problems in licensure, regulation and control of paramedical personnel. Supervision and discipline could be structured into employment policies and procedures, thus eliminating many of the headaches surrounding licensing boards.

Levels of proficiency and training could be easily recognized in terms of wage scale and structure.

Recruitment and training could be provided for communities or companies which are currently unable to attract adequately trained paramedical personnel.

The Corporation could provide on-going supervision and educational programs.

The Corporation would provide a unified agency covering all of the state, hopefully free from interagency rivalry and feuding.

Through its structure the Corporation would be responsive to local wishes and control.

Such a corporation could provide an effective mechanism for integration of federal and private health resources within the state.

Respectfully submitted,

Paul L. Eneboe, M. D.

Dear Sir:

Recently I very much enjoyed seeing some copies of Alaska Medicine. Indeed I have only one complaint. Your issue of September, 1969, volume 11, number 3, because of its wedge shape and slippery cover, impresses me as uncommonly hazardous.

Sincerely yours,

Franz J. Ingelfinger, M.D.

Editor

The New England Journal of Medicine

Doctor Ingelfinger is apparently referring to a paragraph in the article on Postgraduate Medical Education, Alaska Medicine, June 1969:

"Clinical journals should eliminate all articles describing work allegedly done on thirty-nine mongrel dogs. If significant, these can properly be printed in a research of veterinary journal for maximum accessibility to clinicians routinely caring for mongrel dogs. Getting the dogs, rats, and experimental equipment out of the people journals would reduce by over 80% the initial paper load of the clinical journals, and thus advertising could carry the publication and subscription costs. It would also reduce the risk of injury or death by slippage of huge stacks of journals piled about the practicing physician. Incidentally, certain journals such as the NEJM are uncommonly hazardous because of their wedge shape and slippery covers.²

2. A weekly jump test by the clinician at the door of his office could well save his life."



ALASKA MEDICINE



Official Journal of the Alaska State Medical Association

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Volume 12

September 1970

Number 3

About the September 1970 Cover

"EIGHTY WINTERS!"

by

FRED MACHETANZ

A Reproduction of the Original Oil Painting

Fred Machetanz first saw his model for "Eighty Winters!" in a newspaper photo. It took Machetanz six years to locate him – and this masterful character study is the superb result. ■ Machetanz, who has been painting Alaska and Alaskans for 35 years, is considered by many to be the northland's greatest representational artist. He has traveled 200,000 miles over the state, and has lived and hunted with the Eskimos. His Eskimo portraits are his Eskimo friends. His Sourdoughs are men whose faces are etched with the hardships of the trail. His dog teams portray the sure rhythm of a driver who has heard the crunch of runners in the snow. ■ His love affair with the northland started in 1935, after his graduation from Ohio State University with a Master's Degree in art. As Machetanz explains it, "My uncle, Charles Traeger, ran a trading post in the Eskimo village of Unalakleet, and he offered me a free trip north. From that time on, I was an Alaskan." ■ Fred lives on a wooded hilltop in the Matanuska Valley in a studio home he shares with wife Sara, son Traeger and a husky named Ootie.

The original of "Eighty Winters!" is in the permanent collection of the Anchorage Historical and Fine Arts Museum.

Reproductions are available from the museum at \$10.00.

NOTE: The striking June cover photo of a horseback hunter in the Kenai National Moose Range was taken by Jim Reardon, Outdoor Editor of Alaska magazine (formerly Alaska Sportsman).

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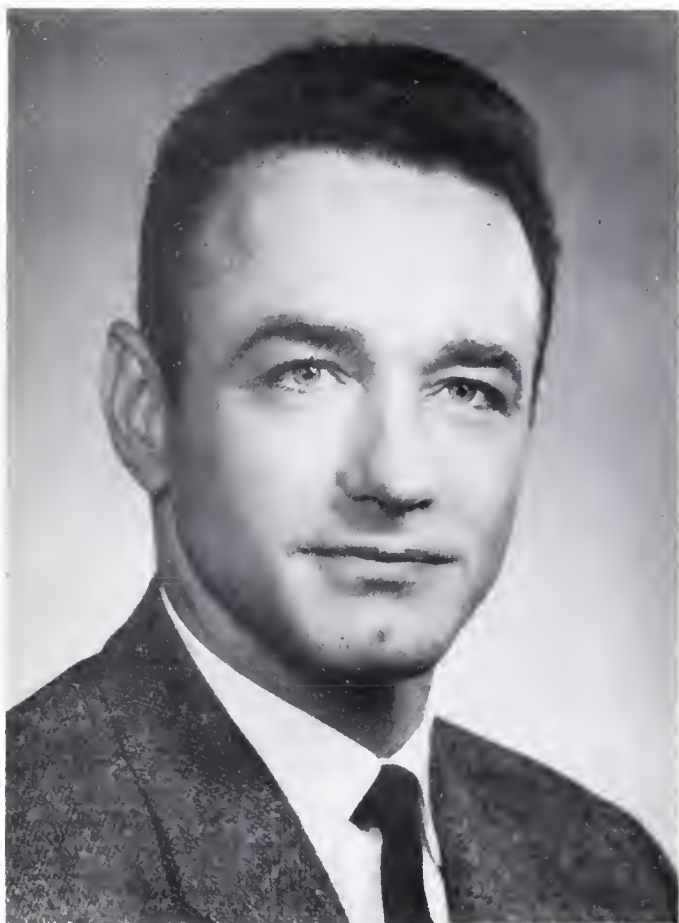
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JOSEPH KURT MIKOLASCHEK, M.D.

1931 - 1970



The death of Dr. Joseph Kurt Mikolaschek in an airplane crash at Big Lake, July 11, 1970, came as a shock to the Anchorage medical community, and particularly to the members of the Alaska Clinic with whom he had practiced for the past year.

Kurt was born in 1931 in Czechoslovakia. He spent a year in a German prison camp during the war, and was freed in Germany in 1945. He graduated from the University of Munich in electronic engineering, and then spent a year and a half working on a Master's Degree. He worked in Germany the next five years as an investigator for the Secret Service, and as a ski and mountain climbing instructor in the Barvarian Alps, and one year as a chauffeur for the Messerschmitt who designed the first German jet aircraft.

Kurt came to the United States in 1958, and attended the University of Michigan for 3 years. He then moved to Aspen, Colorado, where he spent a year as a ski instructor and hotel manager before going back to Michigan to finish medical school. He then went to the University of Colorado Medical Center where he spent three years as a surgical intern and surgery resident.

Kurt was known to his associates as a vigorous outdoorsman and adventurer. He led a very colorful and exciting life, and had received his pilot's license only a few months prior to his death.

SOCIO-CULTURAL ASPECTS OF ALCOHOLISM

By Joseph D. Bloom, M.D.
Anchorage

Dr. John Knowles, Medical Director of the Massachusetts General Hospital, says of alcoholism and its association with poverty:

It is a cruel paradox that medicine generally has had the least effect on the disease-provoking condition of poverty and instead has restricted itself to traditional acute, curative, after-the-fact function. Prevention of disease through alteration and alleviation of those social conditions which generate disease has been left to others.¹

There is continual and often repeated discussion of the use and abuse of alcohol by the native people in the state of Alaska. Although there is now ample evidence that destructive personal drinking patterns are related in no small measure to large-scale sociocultural problems there remain continued attempts to view alcoholism narrowly, using a medical disease model, and calling only for curative medical approaches to deal with the problem. An adequate medical-mental health care system is an admirable goal which should be pursued, and if achieved certainly could help many people. An adequate program of prevention, however, must go beyond a simple fascination with "demon rum," and with the case-by-case method. One must look at the mounting evidence which relates destructive drinking to the very structure and processes of society such as social class, opportunity structures, minority group status, racial attitudes.

An interdisciplinary team of behavioral scientists from the University of Colorado, led by Jessor, recently published a book entitled, *SOCIETY, PERSONALITY AND DEVIANT BEHAVIOR*.² The authors attempt to measure the amount of destructive drinking, the "deviant behavior," in a tri-ethnic community in Southeastern Colorado. The three ethnic groups represented in this community are "Anglos", Spanish-Americans and Indians. Using carefully formulated surveys and questionnaires combined with ethnographic material, the authors describe the social environments for each of the three ethnic groups. This description of social structure and functioning of each ethnic group is then correlated with personality development within each of the three ethnic groups. They conclusively demonstrate that use and abuse of alcohol, which is highest in the Indian group, is

correlated to how an individual fits into the social structure and how he feels about himself.

Among the three ethnic groups studied, the Anglos were shown to occupy the most favorable position in the opportunity structure. They had the greatest objective access to valued goals through legitimate means. They also had the least alienation about group norms, mainly because they had the greatest pay-off from society. This means that the Anglos occupied the point in the sociocultural "space" which was least conducive to deviance. In further analysis it was shown that the Spanish-American occupied the intermediate position in the community, and the Indian population was in the least favorable position.

From the personality development point of view, the Anglos, as a group, have the greatest perception of opportunity; they feel inside of them that they have the opportunities to succeed; they have the highest expectations for achieving goals, with the least personal disjunction. The Indians, on the other hand, feel from early childhood, that they have the least opportunity to succeed, that they can only achieve goals through great sacrifice and personal stress. Again, the Spanish American occupies a middle position.

There is no intention here of saying that cultural variations in drinking patterns do not exist. The cultural variations are not, however, the all important factor in destructive drinking. It is the over-all sociocultural structure in which one group of people shares less of the payoff of society that is more important in the production of large numbers of destructive drinkers and of other labelled deviants. This was clearly documented in the Stirling County Studies³ undertaken by Dr. Alexander Leighton, of the Harvard University School of Public Health. Dr. Leighton, pioneering in the fields of social psychiatry and psychiatric epidemiology, measured the rates of mental disorder in French and English communities in rural Nova Scotia. He found that the rates of mental illness in a given community were not correlated with the ethnicity of the community, but were highly correlated instead with the social structure in particular communities, be they of French or English origins. He coined the term, "sociocultural disintegration" to describe those communities which exhibited poor community

functioning and high rates of mental disorder. This term, "socio-cultural disintegration," applies to the functioning of the community, and not to individual members. Included in this description of the disintegrated community, and characteristic of it, are "high frequency of broken homes; few and weak leaders; few patterns of recreation; and a high frequency of hostility; crime and delinquency."⁴ It is the opinion of the author that many communities in Alaska, especially the larger rural villages, exhibit these features.⁵ This has been pointed out by Hippler,⁶ Hughes,⁷ Ervin,⁸ and Parker.⁹ There is a strong correlation between sociocultural disintegration and poverty.¹⁰

An article written in 1955, "Drinking Patterns of the Aleuts,"¹¹ by Berreman, emphasizes the relationship between drinking and anxiety within the greater community. He predicts that if the villages disintegrate as communities that the drinking will become a "greater problem with increasingly adverse effects upon individuals and communities If economic security and independence could in some way be achieved, it might be expected that the level of anxiety would decrease, and the social situation and drinking patterns would become less of a problem." Berreman again is following the theme of the relationship of drinking patterns and community functioning. He focuses on two important variables in community functioning, that of economic security and of independence.

When applied to the overall situation in Alaska, economic security clearly means greater access on the part of the native peoples to the Alaskan opportunity structure. For example, if one were to study the opportunity structure as it exists in the oil business in Alaska one might well find that the opportunity net stretches all over the United States, and hardly touches the native villages surrounding the North Slope. This was predicted prior to the oil strikes on the North Slope by Jenness. He says,

Because the Eskimos possess no capital and only a few score of them can claim even the most superficial acquaintance with mining operations, the exploitation of far northern minerals and fuels, if and when it occurs, will require very large investments of capital from the outside world, and the hiring from the same world of both skilled and unskilled labor. It may easily happen, therefore, that even a mining boom will bring little or no benefit to the Eskimos, not even the indirect profit which Greenland derived from the royalties on its now exhausted cryolite mine. They may be pushed to one side as lightly as were the Indians in the Yellowknife goldfield and the services they could have rendered be performed by more experienced and disciplined white workers recruited through labor unions.¹²

There is already clear evidence that every one of Jenness' predictions is becoming a reality.

Berreman's second category of "independence" is more difficult to examine than "economic security", but is conceivably far more important. Since the native peoples of Alaska will never again function as "independent" tribes we might define independence here as the degree of control exercised by the local population over programs and policies affecting their lives. The issues involved in local control have had turbulent tests in the last five years of the 1960's through the "war on poverty", which called for the "maximum feasible participation of the poor" in the programs of the Office of Economic Opportunity. This has become a central issue in all programs, particularly in the ghettos of this country. In some places it has led to violent confrontation. Violence aside, this issue of "local control" or "community control" or "black power", seems to be vital to the successful functioning of a community and is, perhaps, the most important one in community development work. There already are many examples of applied local control in programs in Alaska. It is at the base of the cooperatives which are now being organized in rural Alaska. It is the basis for the organization of regional native federations and for the proposed land claims settlements.

It has been the aim of this paper to point to the relationship between destructive drinking and poorly functioning communities. We can say with much confidence that the processes of society are reflected in the amount of personal distress and emotional difficulties experienced by people of that society. We, as physicians, social scientists, planners and politicians can no longer ignore this knowledge regarding the functioning of communities. The old myths regarding the openness of the American opportunity system to anyone who is willing to work honestly, are simply myths. Try as they will, many people cannot break out of the marginal status which has been defined for them by the dominant elements in society.¹³ There is also a certain limit beyond which people do not continue to try. Repeated disappointment and suppression leads to giving up in despair.¹⁴

Alcohol usage of a destructive nature is a form of individual emotional difficulty and also a social indicator. Preventive programs aimed at the reduction of such drinking in Alaska must take a broad approach and must be bold enough to view the totality of community problems and resources. There must be support for those endeavors which would strengthen the cohesiveness, pride and sense of control within the native communities. Experiments in true local control and local administration must be undertaken, if we are to break out of the tyranny of old ideas and failing programs.¹⁵

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NATIVE AFFAIRS PROGRAM OF THE ALASKA AREA NATIVE HEALTH SERVICE

By Gerald H. Ivey

Chief, Office of Native Affairs

BACKGROUND

The Office of Native Affairs is of relatively recent origin being established in August 1967. The Office was formed as a result of a recognized need to develop increased liaison between the Native Health Service and the Native community. In looking back on the history of Native involvement in the Alaska Native Health Service, it is pretty well agreed that until recently the Native people have not been engaged in as meaningful or as effective a role as might be possible.

Within the past four years there has been a tremendous growth of Native associations throughout Alaska and the formation of the statewide Alaska Federation of Natives. The reason and impetus for this rapid growth of Native governmental bodies, can in large part be related to the issue of the Alaska Natives Land Claims which have had the effect of unifying, strengthening and accelerating the growth and increasing the sphere of influence of the Native people. As these associations have become functional and have developed constitutions many of them have adopted formal structures and have developed more responsibility and knowledge in such areas as education, health, welfare, land claims, legal incorporation, etc. It seems clear that as these associations increase their knowledge and sophistication they are asking more questions relative to their general welfare and asking to be included in the decisions which effect them so directly and intimately.

In recognition of this desire on the part of Native people, the Native Health Service has implemented policies "to encourage and increase Alaska Native participation in every phase of the program — in planning, operating and evaluating services at all levels". The goal of the Office of Native Affairs is to promote Native community health development through the following objectives:

1. Liaison with Native organizations, communities and individuals; non-Native organizations and individuals.

2. Promote involvement and positive participation of the Native people in all aspects of the Native Health Service program.

3. Assist villages through direct consultations or indirectly through consultation to Service Units and other organizations to develop village health programs through self-help.

4. Develop good quality Native health manpower through the Community Health Aide Program.

In order to effect these policies, recent reorganizational changes have occurred within the Office of Native Affairs. The Office is composed of two branches: the Community Health Aide Program Branch and the Community Relations Branch.

COMMUNITY RELATIONS BRANCH

The program of this branch concerns itself with liaison with Native associations, individuals and outside agencies. The Native Affairs Officer acts as health advisor to the Native organizations and groups. On occasion this involves meetings with statewide, regional and local Native associations at conferences, conventions and meetings. An important aspect of this interface is to secure the ideas and proposals from the Native people as to how the Native Health Service can more efficiently, effectively and dynamically provide health care that is accessible and acceptable. As an effort to secure greater involvement and participation of the Native people in the program of the Native Health Service, there has been formed in each of the seven Service Units a Native Health Board which meets with the staff in the Service Units. Representatives serving on these Native health boards are selected by the Native associations from within the Service Units. These health boards meet several times a year with the Service Unit staff to mutually develop program direction through the formation of a program plan, and to review and evaluate the system of services which is provided to the Native people. In addition to this Service Unit health board there has been formed an Area Board which is composed of one representative from each of the Service Units which meets with the Director, Alaska Area Native Health Service and his staff for similar purposes as those mentioned above. These boards have proven to be an invaluable aid toward

improving the services offered because of the knowledge, insight and expertise which these Native representatives possess and have made available.

There exists a critical shortage of health stations or health clinics throughout most of the communities in rural Alaska. In an effort to overcome this shortage and to provide an adequate place in which to work for the Health Aides and other health professionals, many of the smaller communities have begun self-help projects whereby the community builds or remodels an existing structure which can serve as a health station. For a minimal amount of money, usually less than \$10,000, which is secured by the community, and a great deal of labor on the part of the community residents, they are able to construct at least a minimal health station which meets the needs of that community. The community in turn leases these health stations to the Native Health Service for use by the Community Health Aides and other health professionals who travel to the communities.

Another example of developing increased responsibility in the field of health, is the effort to actively involve the Native councils and communities in the selection and supervision of Community Health Aides. The Native Health Service presently has contracts with the Native communities, with individual village councils and with regional Native associations to provide the manpower necessary for the Community Health Aide Program. Increased efforts are being made to further orient and educate the councils as to their responsibilities in the selection, supervision and evaluation of the Health Aides. Current negotiations are occurring with the Native Health Service to provide the administrative and accounting machinery necessary to insure timely payments to the Health Aides. In addition, current contracts are in effect with the Northwest Alaska Native Association and the Association of Village Council Presidents, which represents 55 villages in Southwest Alaska. As a result of these contracts and other self-help projects, there is developing an increased responsibility and expertise by the councils towards independence and increasing management responsibility in health care and other fields.

COMMUNITY HEALTH AIDE PROGRAM BRANCH

There have been people living in rural Alaska who have functioned as health workers for a good many years. These people, largely unpaid and in some cases formally untrained, worked with whomever was available by use of short wave radio or any other communication which

was available. For example, private practitioners, public health nurses, Native Health Service physicians and others worked with and informally trained these people so that they were able to provide some form of health services for the local residents.

In September 1968 the Native Health Service instituted a formal training program in over 150 communities involving close to 200 Health Aides throughout the State of Alaska. The training program which has developed thus far, is divided into four phases of training and occurs at the community locations, at the Service Units, and at the medical center in Anchorage. These Community Health Aides are trained to work directly with health professionals in an attempt to provide an improved system of health services which reaches out to each of the communities. Although this formal training program is only approximately 1/2 completed there has been improvement and change in the general health level of the rural Alaska residents. It is believed that the Health Aides have been a factor in this change. Marked decreases have been noted in the inpatient census and a lesser number of more severely ill people are being seen at the hospitals than was the case before these Aides are being utilized. Much more work needs to be done in regard to the selection, further training, supervision and evaluation of the services performed by these heroic Health Aides. Increased effort is being made to work with the councils and Native organizations to better orient them toward the need to select the most capable people in the communities to provide these services. It is not intended that the training of these Aides stop at the completion of the now planned four phases. It is anticipated that further training will be developed when the Aides reach this level of training. Further advanced Aide training will shortly be instituted and conducted by the Yukon-Kuskokwim Health Corporation, which is an affiliate of the Alaska Federation of Natives, in the Bethel area of Alaska. It is hoped and anticipated that a career ladder can be developed whereby there are continual opportunities for Health Aides to upgrade and increase their level of sophistication and competence. Private practitioners, public health nurses, the Alaska Department of Health and Welfare and other interested groups and agencies have contributed valuable knowledge and ideas to the program. It is possible in the not too distant future that through the mechanism of licensure and/or certification there will exist a structured career ladder for the para-professionals in the health field in Alaska, which can be mutually developed by all concerned professions and groups.

THE EYE AND ADNEXAL DISEASE OF THE ALASKA NATIVE-1970

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ABSTRACT Among 39,019 consecutive hospital admissions to the Alaska Native Health Service Hospital from April, 1953 to February, 1970, 1,889 eye cases were studied. They are considered against the anthropological background and the sociological effects of white immigrations to Alaska over the past 200 years. The most prevalent eye pathology among these patients admitted either primarily for eye and adnexal disease or in whom ophthalmic pathology was of secondary importance were in the order of number: Phlyctenulosis, the effects of trauma, heterotropia, senile cataract, posterior segment disease, and glaucoma.

The foremost remaining ophthalmological problem is the need for complete eye examinations in the villages and promptly provided well fitting attractive, reasonably priced spectacles.

INTRODUCTION

Over many years ophthalmologists from all over the world have written in order to find out what eye diseases afflict the Native people of Alaska. Many were particularly interested in the prevalence of the glaucomas. Others wished to know if there had been any change in the past 30 years in the quantity and types of eye disease afflicting the Native population.

No better source exists for answering these questions than the records of patients admitted to the Alaska Native Health Service Hospital, Anchorage, from 1953 through early 1970.

PURPOSE

The purpose of this study, therefore, was to cull from the records of the Alaska Native Health Service Hospital those cases admitted primarily for the diagnosis and treatment of eye disease or with eye disease of such importance that, though the primary disease had nothing to do with ophthalmology, ophthalmological consultation was sought.

METHODOLOGY

Within the Alaska Native Health Service Hospital each record has a front sheet on which enough family data, personal information, and other material are available for a study of this kind. Primarily there are the principal and secondary diagnoses as well as medical treatment, surgery, duration of hospitalization, immediate results of treatment and surgery, and disposition of each case. On each record, also, is the information as to whether the chart was the patient's first admission or subsequent admission, his social security

number, occupation, birthplace and home at the time of admission.

All 39,019 of the hospital records are examined covering the period 1953 (opening date of the hospital) through January 31, 1970. Of these, 1,889 had eye disease recorded as either the primary diagnosis, or as an associated condition. These latter records were carefully reviewed, and form the basis of this report.

ANTHROPOLOGICAL AND SOCIOLOGICAL BACKGROUND

The Alaska Native Health Service Hospital opened its doors in 1953 for the care of Alaska Native patients. There are about 53,000 native people, the exact number depending upon whether one includes only "pure" Natives or those who have up to 1/8 Native blood. Except for about 1,000 Indians who live on two small reservations, the remainder are not so confined.¹

Of the 53,000 Natives, 27,560 are Eskimos, 18,020 are Indians, and 7,240 are Aleuts.² My own observations and the words of Hrdlicka³ thirty-five years ago makes me believe that most Alaska Natives are of mixed blood because of the migration of the early Russian explorers, the whalers from our own country, and succeeding waves of military men, traders, construction people, employees of federal agencies, and most recently, members of the petroleum industry and other Alaskan workers and settlers.

Among Alaska Natives as well as among members of the white race, the female is not only more attractive, but far more adaptable than the male. The native ladies, when they move into Anchorage or Fairbanks (Alaska's largest cities), as they do in ever increasing numbers, quickly adapt to the white man's way, complete with mini-skirts, pants, dark glasses, cigarettes, and the drinking of alcohol. They like to come because the schooling, medical care, water, heat, and lights are available to everyone.

The Native male, on the other hand, in many cases a grammar school dropout, was traditionally and by training a hunter, and as such as been respected by his wife, his children, and members of the white

race. Non-Native sportsmanship now includes the execution of wild animals from motor vehicles such as airplanes, helicopters, motor boats, snow machines, and swamp buggies, by using powerful rifles with telescopic sights. Wildlife available for hunting and subsistence has decreased beyond the place where it can support a family, to the point of extinction — as in the case of the sea otter and fur seal, rescued at the last moment by Federal protection and conservation.

The use of the snow machine has also contributed its bit toward changing Native family life.

In the fall of 1969 there were four working dog teams in Kotzebue. In 1965 there were more than 50. Keeping these animals meant life itself to many Native families. The people moved en masse to fish camps in the summer, where they pursued the age old occupation of catching and drying fish for feeding themselves and the dogs, which were essential for hunting and trapping and transportation. With the snow machine, which six and eight year olds can and do operate, this essential family unity that has existed for three or four months a year away from the influence of the white man has virtually disappeared. So instead of a family united in an effort for survival by this return to a simpler and sometimes happier way of life they now buy the snow machine on a deferred payment plan. And the gasoline requires nothing more than the use of the credit card.

The result is quite obvious in Kotzebue and Nome. These small cities were formerly almost devoid of Native people during the summer when they used to be out in fish camps. Now, however, one sees them looking for employment and changing to a cash economy, often getting into all sorts of difficulties.

The Native man's ability in fishing, hunting, and handling of dogs are now largely obsolete, and when, with his family, he comes to the city to enjoy all the so-called advantages, he finds himself sadly lacking in saleable urban skills. If he gets a job it usually is the most menial. He is the last to be hired and the first to be fired. His family may not respect him since, if untrained, he neither contributes his skills nor earns enough money for their subsistence. The latter may be supplied by The Alaska State Department of Public Welfare, Aid to Dependent Children, or other state and federally funded programs, or an unemployment dole. Many wives work to help out.

Thus, when the Native man is in town he may lose his self-esteem because he has no job and no saleable skill. It is not surprising that one chart in

ten of the 39,019 just reviewed, other than those patients with degenerative disease, carried such doleful diagnoses as alcoholism, suicide attempts, lacerated wounds of the neck, fractures, contusions, falls; beatings administered by the Native male to his wife, his children, or himself by some white man or other Native at home, in a bar, or in the home of a friend.

In town the high school kids with no car, no motorcycle, and girls with very little more than the most necessary clothes fall easy prey to alcohol, drugs and promiscuity. The dropout rate is very high. Their Non-Native classmates have the status symbols of the young — many changes of clothes, and often wigs and falls and other furbelows that the average Native kid doesn't own. Forty per-cent of the adults have, in the square designated for that purpose, the entry "separated" or "divorced".

Until five years ago many Natives in town were ashamed of their noble racial heritage. In traveling around Alaska, I have often heard the younger folks quickly shush older Native patients from the bush as they came to clinic if they spoke in their Native dialect, as though the ability to speak the old language was somehow degrading. The younger folks insisted on the use of English, however halting.

The pending settlement of the Native land claims has placed the Native in focus. They as well as non-whites have a new realization of the significance of Native heritage.

That Native men and women have risen to eminence in many fields inside and outside of Alaska is well recognized. The increasing number of Natives who graduate from grammar school, high school, college, and graduate school is impressive.

What is a Native? How much Native is he? The answers to these anthropological questions are supplied by each patient — Aleut, full; Eskimo, half; Indian, 1/8. Yet Hrdlicka⁵ in the 1930's expressed the relative rarity of pure Natives, these being found in the Kodiak region of Alaska, then quite inaccessible to all but the most intrepid travelers.

Native women, when cherished and loved, have an astonishing beauty. That is why so many of them are married by whites, and in Alaska for the most part are accepted without bias wherever they may go. The Native man is handsome and intelligent but handicapped by inability for earning a living in town.

In one square on the front sheet of these charts is for the social security number. The observer again

notes that the Native ladies far outnumber the men in possessing this important identification. Even in the villages the ladies often hold jobs which make them eligible for certain state or federal funds, while the man who hunted and fished had nothing but a blank to show for his efforts.

I have no solution for these tragic, vexing trans-cultural problems, but against them the prevalence and incidence of eye diseases can perhaps be understood as mileposts in human tragedy; whereas by themselves they would have little meaning.

Ten years ago dog bites were a common cause of fearful injury. Today this type of injury has almost disappeared. Now we note such diagnosis as amputation, traumatic of right foot by snow machine belt; avulsion of right hand caught in snow machine; traumatic rupture of right eye by starting rope of snow machine; fracture, depressed skull from fall off snow machine.

As one reviews these 39,019 records dating back to 1953 one is impressed by the overwhelming number of patients in the first ten years with pulmonary tuberculosis and tuberculosis of the GU tract or the bones and joints. Accompanying these was a tragic number of cases with chronic suppurative otitis media and the complications of mastoiditis. Only 1,889 cases were found admitted for eye diseases primarily or who had eye disease of secondary consideration. In comparison with the physical and psychic diseases of most of these patients, the ophthalmologic problems encountered seem almost insignificant.

The crude death rate of Alaska Natives is more than twice the rate of white Alaskans — 9.6 deaths per 1,000 versus 3.8 for whites. The average age of death in 1966 for the Native was 34.5 years whereas among all US whites it was 66.0. A high infant mortality rate, about two times the national average in 1966, accounts mainly for the discrepancy in crude death rates. Life tables show during 1959-61 Alaskan Natives had a life expectancy of 64.4 years for those who reached the first birthday as compared to 70.6 years for the US population. The three principal causes of death are accidents, influenza, and pneumonia — 10 times the influenza-pneumonia rate among whites. Accidents represents 3 times the white rate, while suicides are double those for whites. Tuberculosis has fallen from 650 per 100,000 in 1950 to 25 in 1966.⁴

In presenting this study I am aware of unavoidable inaccuracies. For instance, the reporting of phlyctenular keratoconjunctivitis (PKC) scars in

this contribution is not accurate. It tends to underestimate the prevalence. Many of the cases were reported by ophthalmologists of skill, determination, and curiosity, armed with the latest slit lamps. On the other hand, other cases were reported by physicians trained in other fields who were assigned ophthalmological chores for longer or shorter periods of time. They often made the diagnosis with nothing more complicated than a flashlight and their unaided eyes, occasionally augmented by a simple magnifying loupe. Besides physicians in the USPHS there were physicians of the Alaska Department of Health, the military, and civilian physicians with different degrees of training, experience and interest.

In medical centers in the South 48 glaucoma detection is based on far more sophisticated and numerous tests than could be employed in the group of patients considered here. Provocative water drinking mydriasis, central and peripheral field studies, tonography and gonioscopy study remain for the future. The presence or absence of glaucoma was determined mostly by the use of the Schiotz tonometer.

The paucity of reported posterior segment disease is attributed to the infrequent use of mydriatics in turn dictated by scarcity of money, personnel and time.

The primary admissions for eye and adnexal diseases alone (812 cases) were very few, and consisted surprisingly enough mostly of traumatic cases or cases of serious trauma complicated by trauma to the eye. PKC was the most frequent eye disease and was almost never found in the absence of either pulmonary tuberculosis, chronic middle ear or suppurative mastoid disease, or both.

Errors of refraction, spontaneous conjunctival hemorrhage, arcus senilis, and pinguecula have been omitted from the list.

Congenital anomalies

Heterotropias lead all the rest totaling 306 cases.

Esotropia	214
Exotropia	87
Hypertropia	2
Overaction of interior oblique	3
Amblyopia ex anopsia (Associated with tropia)	46
Trichiasis	31
Congenital cataract	10
Congenital ptosis	8
Coloboma of upper lid (1)	3
Entropion	3
Distichia	3
Congenital myopia	2
Congenital amblyopia	2

Epiblepharon	2
Epicanthus	2
Nystagmus	2
Corneal leukoma	2
Congenital blindness	2
Microphthalmos	1
Congenital absence of pupil	1
Aniridia	1
Congenital dacryostenosis	1
Coloboma of upper lid (2)	1
Congenital cyst of iris	1
Congenital corneal lattice degeneration	1
Congenital anomalies total	428

Acquired Diseases

Some patients had from one to multiple eye diseases involving one or both eyes. The afflictions were about equally divided between male and female.

PKC	457
PKC Scars	342
PKC acute	56
PKC complications from synechia to phthisis	59
Cataract, senile	266
Disease, posterior segment (see analysis below)	101
Glaucoma, narrow angle or not specified	98
Pterygium	84
Conjunctivitis, bacterial or viral	52
Lacrimal apparatus disease	38
Iridocyclitis, primary	31
Entropion, spastic	24
Iritis	24
Phthisis, Bulbi, non traumatic	23
Lid, abscess of	19
Chalazion	19
Uveitis	15
Ulcer of cornea	14
Blepharitis	9
Panophthalmitis	8
Ectropion, cicatricial	7
Reiter's Syndrome	6
Corneal dystrophy	5
Uveitis, sympathetic	1
Acquired Diseases total	1,301

Injuries

There were no industrial (compensible) injuries. Where the sex of the patient is indicated males outnumber females 211 to 115. There were 17 cases where sex was not indicated on the record. Many of the female patients' injuries were inflicted by males. Most injuries occurred when the patient or the attacker was under the influence of alcohol. Many eyes suffered multiple injuries.

Traumatic cataract	40
Contusion of globe	25
Lacerated wound of lid	19
Lacerated wound of cornea	16
FB of cornea	15

Traumatic phthisis	15
Penetrating wound of globe	13
Subconjunctival hemorrhage (massive)	13
Hyphema	12
Corneal scar from trauma	12
Penetrating wound of cornea	8
Iris prolapse	8
Lacerated wound of conjunctiva	8
Rupture of the globe	5
Miscellaneous injuries	134
Injuries total	343

Post Segment Diseases

This is an analysis of post segment disease listed under Acquires Diseases (above).

Senile macular degeneration	23
Choreoretinitis	15
Optic atrophy	11
Choroidal atrophy	8
Retinal detachment	6
Vitreous hemorrhage	4
Diabetic retinopathy	4
Retinitis pigmentosa	3
Myopic degeneration	2
Retro bulbar neuritis	2
Occlusion retinal vessel	2
Retinitis	2
Asteroid hyalitis	2
Pre retinal hemorrhage	2
Pigmented retinal lesion (angoid streaks)	2
Retinitis punctata albescens	2
Eale's Disease	1
Coate's Disease	1
Circinate retinopathy	1
Periphlebitis	1
Retinal edema	1
Central serous retinitis	1
Post Segment Disease total	96

Neoplasms

Papilloma of Conjunctiva	4
Nevus of lid	3
Retinblastoma, monocular	2
Lacrimal gland cyst	2
Dermoid of limbus	2
Nevus of the caruncle	2
Nevus, non pigmented of conjunctiva	2
Cyst of conjunctiva	2
Basal cell carcinoma of the lid	1
Melanosis of the sclera	1
Tumor of orbicularis oculi	1
Bulbar tumor, conjunctiva	1
Papilloma, multiple, of lid	1
Exostosis of orbit	1
Fibroma of lid	1
Nevus, pigmented of conjunctiva	1
Verruca, pedunculated, of lid	1
Leukosarcoma of post segment	1
Neoplasms total	29

Miscellaneous Eye Diseases

Blindness, right or left or both, cause unknown (5 bilateral)	17
Anophthalmos after surgerry	9
Post operative aphakia	8
Complicated cataract	4
2° glaucoma	3
Undiagnosed eye disease	2
Symblepharon	2
Vaccinia, left upper lid	2
Exophthalmos (goiter)	2
Corneal infiltrate	2
Keratoconjunctivitis, sicca	2
Dermatochalasis	2
Episcleritis	2
Herpes Zoster ophthalmicus	2
Interstitial keratitis	1
Corneal opacity, cause unknown	1
Paralysis, left external rectus	1
Herniation of orbital fat	1
Partial subluxation of lens	1
Scleritis	1
Paralysis of conjugate lateral eye movements	1
Blindness after meningitis	1
Neuroparalytic keratitis	1
Corectopia	1
Duane's Retraction Syndrome, left and right	1
Exotropia due to macular scars	1
Inferior rectus palsy	1
Absolute glaucoma	1
Restricted visual field due to aneurysm	1
Blindness due to chiasmal arachnoiditis	1
Exophthalmos, cause unknown	1
Defect of vision, cause unknown	1
Corneal macula	1
Scar or deformities of eyelids, cause unknown	1
Blindness due to brain tumor	1
Ptosis due to paralysis 3rd cranial nerve	1
Herpes Simplex cornea	1
2 cataract	1
Sjorgen's Syndrome	1
Total miscellaneous eye diseases	84

CONCLUSIONS

The alleviation of poverty, the improvement of the living conditons, the raising of the educational level, and the settlement of Native land claims will do much toward equating the diagnosis and treatment of eye pathology among the Natives with that of the non-Native people of Alaska.

In the past 30 years the importance of phlyctenulosis has declined to a remarkable degree. Today the problem of the prompt supplying of optical aids for the improvement of vision and teaching Native people how to repair, adjust, and fit glasses are the great problems. Earlier recognition of and prompt treatment of heterotropia will do much toward reducing the later prevalence of amblyopia and increase the number of individuals who have binocular single vision.

Among the 39,019 hospital admissions to the Alaska Native Health Service Hospital, phlyctenulosis, the effects of trauma, heterotropia, senile cataract, posterior segment disease, and glaucoma, in that order constitute the principal eye pathology among the Natives of Alaska.

Of the 1,889 eye cases 812 were admitted for eye diseases primarily and 1,077 who were admitted for other reasons had eye diseases of sufficient importance that consultation by an ophthalmologist was sought. Surgery was the leading modality of ophthalmological treatment.

Thirty years ago the principal health problem was pulmonary tuberculosis and its complications. Today, this disease has assumed a minor role. Prior to 1950 phlyctenulosis and all its complications was the principal eye disease. Today, thanks to the advent of the steroids in the treatment of acute phlyctenulosis the prevalence and density of corneal scars and other complications has also decreased dramatically.

The principal problems, generally speaking, today among Alaska Natives are: Poverty and poor housing. One of the greatest obstacles in the way of perfect health is deafness from middle ear disease and its complications, such as mastoiditis.

The ophthalmologist's role in improving the health of Alaska Natives lies in eye examinations, including refractions, at no greater than yearly intervals, and providing accurately fabricated, attractive, reasonably priced spectacles within a few days of the examination transcends all other ophthalmological problems in importance. Under the present system, which scores of ophthalmologists and administrators have attempted to improve, there is currently a 2 to 6 month lag between the eye examination by the ophthalmologist and the supplying of the proper spectacles based upon these examinations. In this interval people may move in the course of their occupations, especially many youngsters who move to schools and jobs within and outside of Alaska, vastly decreasing the likelihood of their spectacles ever catching up with them in time to do them any good. As a corollary, prompt supply of replacement parts and repairs still has to be solved.

The recognition of the importance of opticianry by administrators and, I am sorry to say, many ophthalmologists, is long overdue. When an optician accompanies an ophthalmologist on itinerant eye clinics the quality of spectacles supplied, their fit, the promptness with which they are delivered, and the availability of replacement

parts and repairs is improved to an almost unbelievable degree. The optician, also, can teach responsible and interested persons in the smallest settlements how to adjust spectacles, measure people for frames, and make simple repairs.

Personnel for eye examinations are going to be scarce for many years. Ophthalmologists, optometrists, and opticians working together could vastly accelerate the ameliorations of eye pathology and the neutralization of errors of refraction among Alaska Natives. As rivals they fragment the effort. As destructive critics of one another they bring progress to a virtual standstill. The efficiency of these three groups cooperating is no novelty. It was successfully done at the Dartmouth Eye Institute for a decade in the 1930's and 1940's

This study would not have been possible without the generous cooperation of John F. Lee, M.D., Medical Director, Alaska Native Hospital, Anchorage, Alaska 99501, his secretary Mrs. Emily Jennings, and typist Mrs. Lucy Tetpon.

Invaluable assistance with the tedious statistical work was rendered by: Mrs. Elizabeth Fritz, R.N., Miss Shirley A. Miller, Mrs. Mary Brandenburger, Mrs. Arlene Provost, Mrs. Linda Aszmun, Miss Patsy Brandenburger, Miss Cheryl Brown.

This presentation has been cleared by the Alaska Area Native Health Service. The views expressed in the paper do not necessarily reflect those of the Service.

This paper was presented at First Annual Congress on Regional Ophthalmology at Yellowknife, N.W.T., June 1970.

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INTRODUCTION

In the period from 1920 to 1960, the neurosurgical approach to that species of brain tumor known as acoustic neurinoma was developed under the leadership of Dr. Harvey Cushing and Dr. Walter Dandy. At the end of that period the posterior approach to this space-occupying intracranial lesion was well established, and the morbidity and mortality figures for this classic approach continued to indicate that it indeed represented a formidable lesion. With the development of improved audiology and otologic microsurgical techniques it became possible to detect and approach the lesion at a stage in its growth then it was still a nerve tumor, rather than a brain tumor occupying significant and important portions of the intracranial space. In the past decade under the

leadership of Dr. William House, otologists, in conjunction with neurosurgeons, have pioneered and refined the lateral and superior approaches to tumors of the eighth cranial nerve; the discussion which follows relates to this approach. During this period of technique development, neurosurgeons have continued to operate on brain tumors of the eighth nerve, and otologists on nerve tumors of the eighth nerve. It is becoming increasingly apparent as experience accumulates that with utilization of a combined approach, merging otologic and neurosurgical disciplines, this distinction between nerve and brain tumors may soon be abandoned, so that patients with an acoustic neurinoma in any stage of its life history may have the best of both techniques. — George Lyons, M.D., Anchorage.

PRACTICAL CONSIDERATIONS IN THE DIAGNOSIS OF ACOUSTIC NEUROMA

From the Departments of Otorhinolaryngology and Neurology, USAF Hospital Elmendorf, Anchorage, Alaska.

The views expressed herein are those of the authors and do not necessarily represent those of the U.S. Air Force or the Department of Defense.

**By Matthew L. Howard, M.D.
James O. Stallings, M.D.
Donald G. Sessions, M.D.
William Lawrence, M.D.**

Acoustic neuroma is the most common of the group of lesions which may produce the "angle syndrome", and represents a significant proportion of all intracranial tumors. The purpose of this paper is to review the essential points of diagnostic importance and to present the first successful removal of such a lesion by otomicrosurgical technique in Alaska.

The angle syndrome is the consequence of a space occupying lesion arising in the region of the cerebellopontine angle and is manifested by symptoms arising from pressure on the cerebellum, the auditory and vestibular branches of N.N.VIII and on V, VII, IX, and X in more advanced cases. In addition to acoustic neuroma, which is a benign, encapsulated neurilemmoma of eighth nerve origin, petrous pyramid cholesteatomas, meningiomas, arachnoid cysts, and some few other lesions may produce similar symptoms.

Sir Charles Bell described the problem early in the nineteenth century but no surgical removal was attempted until 1894. Early authors reported high mortality rates and poor success in removing lesions completely. Gradual improvement in results was reported until the application by

House in 1954 of microsurgical techniques to the translabyrinthine approach originally suggested by Panse. The operating microscope, constant suction-irrigation, high speed drills and diamond burrs have led to a remarkable reduction in mortality and significant improvement in the functional result. The introduction by House of the middle fossa approach has opened the door to removal of small intracanalicular lesions with preservation not only of facial nerve function but sometimes of hearing as well.

The relatively high incidence of these tumors, coupled with the availability of new surgical techniques, emphasizes the importance of early diagnosis if mortality and morbidity rates are to be further improved. Although much of the equipment which is of value in studying this condition is restricted by its cost to the larger centers, the basic tools and techniques are, or can be, available to every otologist, internist and family physician.

The initial symptoms of which these patients complain are confined to the ear. Tinnitus, usually high-pitched and unilateral, hearing loss and "dizziness" are described. The order of presentation will vary from patient to patient.

Some may have the illusion of motion called vertigo, but most will notice only unsteadiness or a feeling akin to motion sickness. It is no exaggeration to say that despite the commonness of these complaints, every patient presenting with them should have the benefit of screening procedures to rule out acoustic neuroma. Facial weakness or numbness are usually encountered later in the course of the disease.

Positive physical findings will generally be confined to the neurological examination. Pathologic changes in the tympanic membrane are of significance only to the extent that they represent active disease which may explain the symptomatology. Nystagmus may be present. Other suggestive findings will include depressed corneal reflexes, facial hypesthesia, facial weakness, and hypesthesia of the posterior superior canal wall. Evidence of cerebellar dysfunction should also be sought. Lack of coordination in performing rapid alternating movements (dysdiadochokinesis), errors in the finger-to-nose test (dysmetria), and past-pointing are sought.

Audiometric examination is essential. Johnson found that there are no constant positive findings in patients with acoustic neuroma, but typically there will be a sensorineural hearing loss, equivalent depression of the speech reception threshold, unexpectedly severe depression of speech discrimination scores, absence of recruitment as shown by low SISI results, and marked tone decay manifested by type III or IV Bekesy tracings. Of these, the basic testing can be done with a simple screening audiometer capable of air and bone conduction measurements as can be found in many a generalist's office. Discrimination testing can be carried out with the examiner's voice and a standard word list, masking the untested ear with a noise-maker, if the audiometer lacks the capability for speech testing. The modified tone decay test, the most reliable single screening test, requires only a simple audiometer. A continuous tone five decibels above threshold for the frequency being tested is presented to the ear by air conduction. The normal ear will continue to hear this tone for approximately sixty seconds. In an involved ear, the patient will perceive fading of the tone after a few seconds, with return when the input is increased another five decibels. In a markedly abnormal ear, rapid loss of each new loudness level at the same frequency will occur. Results are expressed in terms of the decibel increase required during the sixty second test period to maintain patient awareness of the sound. In the normal ear this will be less than fifteen decibels. In seventy percent of patients with acoustic neuroma, it is greater.²

Vestibular testing is also important. It is best performed by bithermal caloric stimulation of the external canals utilizing electronystagmography. The ear involved by acoustic neuroma demonstrates a reduced vestibular response, sometimes called "canal paresis". In the presence of spontaneous nystagmus, electronystagmography is essential for accurate diagnosis. In its absence, a simple screening test for vestibular function also is available. The minimal caloric stimulation test as described by Linthicum³ involves the introduction of 0.2 cc. of ice water into each canal with the head turned to the side. After twenty seconds the head is straightened. If the test is performed with the patient supine, horizontal nystagmus should occur with the head elevated thirty degrees and rotary nystagmus when the head is upright. Several minutes are allowed to pass between the testing of the two ears. Absence of response is abnormal, and that ear is then retested with increasing amounts of ice water. Failure to respond to 2.0 cc. of ice water is evidence of pronounced pathology.

Radiographic examination should be performed in all patients in whom acoustic neuroma is suspected. Stenver's, Towne, and transorbital views of the petrous pyramid, especially if they can be taken in stereo, may reveal asymmetry of the internal auditory canal. A difference of more than two millimeters is generally considered significant. Laminography in the anteroposterior plane will further delineate differences seen on the plain films. The definitive diagnosis of neuroma, short of surgical exploration, is made radiographically, by posterior fossa myelography with lophendylate. After examination of the fundi, lumbar puncture is performed and the contrast material introduced. Spinal fluid removed is submitted for the usual studies. The patient is positioned head down to permit the dye to run into the posterior fossa, and views of each side are obtained. Plain films will suffice although tomography adds clarity. The agent will fill the normal internal auditory canal producing a characteristic notched appearance. Failure to fill the canal of the involved side is suggestive. The techniques, and the expected radiographic appearance, are clearly described by Hitselberger and House.⁴

It is clear, therefore, that simple screening procedures are available to all practitioners and application of them to patients presenting with early symptoms such as unilateral tinnitus, or otherwise unexplained dizziness or hearing loss, will lead to the diagnosis of these lesions at an early stage. This in turn will afford surgeons the opportunity to utilize new techniques of removal with lower mortality and morbidity and improved

functional results. The application of these techniques is illustrated in the following case report.

A twenty-nine year old female was referred to the ENT Department of the USAF Hospital Elmendorf complaining of persistent facial numbness after delivery of her second child. Presentation was breech and the labor prolonged. Aside from the present complaint, the postpartum period was unremarkable.

At initial examination the patient complained of the facial numbness and a recently discovered loss of hearing in the left ear. A high-pitched tinnitus was evident in the evenings. An unsteady "light-headed" feeling which caused her to fear that she might fall was also reported.

Physical examination revealed a normal external canal and tympanic membrane. Tuning forks placed over the nasion were heard in the right ear, and air conduction was greater than bone conduction. There was no nystagmus in forward gaze, but rotary nystagmus was present with upward gaze. Pupillary reactions and fundoscopic examination were unremarkable. The Romberg test was normal, but dysmetria, dysdiadochokinesis and past-pointing were all present on the left. The left corneal reflex was depressed as was reaction to light touch of the skin of the left cheek. Facial nerve function was normal. The remainder of the examination was normal.

Audiometry revealed a seventy decibel sensorineural hearing loss in the left ear and normal hearing in the right. Speech reception threshold scores were appropriate, but discrimination scores were entirely normal. Tone decay was absent in the right ear; forty decibel decay at four thousand Hertz was found in the left. Vestibular response to 0.2 cc. of ice water placed in the right ear was normal; there was no response to up to ten cc. in the left.

Stenver's views of the petrous pyramid revealed a slight enlargement of the left canal which was confirmed by tomography. Posterior fossa myelography was therefore carried out by the techniques previously referred to. This revealed a normal right internal auditory canal. The left canal did not fill. Instead a lobulated filling defect measuring two centimeters in greatest diameter and protruding slightly into the posterior fossa was demonstrated. Spinal fluid withdrawn at this time contained ninety-two milligram percent of protein.

On January 16, 1970, a translabyrinthine exploration of the left cerebellopontine angle was carried out by the senior author

and a visiting Air Force consultant*. This revealed a large encapsulated tumor arising from the inferior vestibular nerve and intimately involving the facial nerve. It was removed in toto except fragments of capsule adhering to the brain stem and facial nerve. The histologic diagnosis was benign neurilemmoma. Anatomical continuity of the facial nerve was preserved although stimulation of the nerve at the close of surgery revealed a physiologic block at the lateral margin of the internal canal.

Postoperatively the patient exhibited the expected total facial paralysis. Tone of the facial muscles is good and essentially complete return of function may be hoped for. Meningitis developed on the third postoperative day and was controlled by antibiotics. No organism could be cultured and therapy was instituted with Keflin and Garamycin. No sequelae have been noted. Cerebrospinal fluid drainage also was noted postoperatively and cleared spontaneously after four weeks. She is presently feeling well.

*Dr. Brian McCabe, Head of Department of Otorhinolaryngology, University of Iowa School of Medicine.

SUMMARY

A discussion of cerebellopontine angle syndrome has been presented with a description of the readily available screening tests used to make a diagnosis of acoustic neuroma, the most common cause. The first successful otomicrosurgical removal of such a lesion in Alaska is presented.

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EXPOSURE OF THE ESOPHAGEAL HIATUS

By F. J. Hillman, M.D.

Anchorage

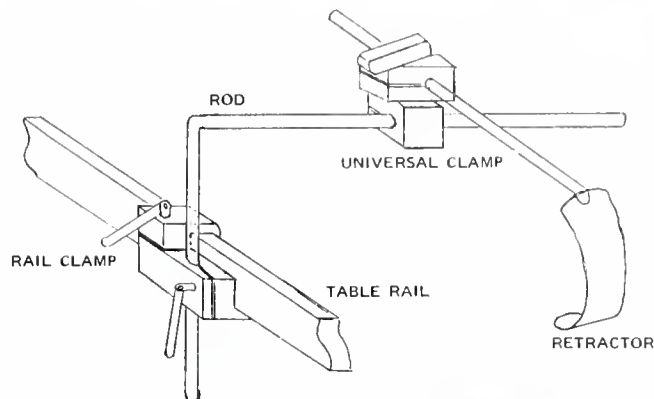
Exposure of the esophageal hiatus from the abdominal approach often is difficult if the patient is obese or deep-chested, or if a weak assistant fatigues readily. There are two retractors which can greatly improve the exposure of the cardia and the margins of the crus, either in the repair of esophageal hiatus hernia or in the dissection of the vagus nerve. One is a simple and homemade tool, and the other is an intricate manufactured device.

The first is a flat blade with a hook on each end of it placed at an angle to curve around the esophagus and yet be out of the way. With it the esophagus can be gently pulled to the left and anteriorly to expose the margins of the hiatus and the right crus. Such an intricate curve is difficult to achieve by hand at the operating table, unless you are stronger than I, and is best done at a workbench. Take a 1" x 13" malleable ribbon retractor, a wooden rod (3/4" dowel rod or a small broomstick) a wood vise and adjustable jawed pliers or c-clamp. Angle the blade against the rod at 45° on one end and 60° on the other (bearing in mind the proper orientation) and curl the end of the blade around the rod. By using wooden or padded tools there will be fewer scars in the metal to be buffed away later.

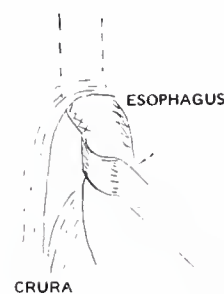
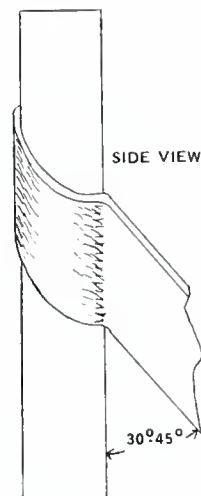
The second device¹ is the Positioneze retractor*, a table-attached rod with a variety of retractors which attach to it by universal lock joints (which are similar to those of the Roger Anderson external splint apparatus). A Weinberg retractor, "Joe's Hoe", can be attached to it, when combined with a bilateral subcostal incision and an intact left triangular ligament, it gives superb open exposure of the area. This table-attached retractor does not fatigue, and it frees the assistant to assist. Though table-attached and rigid, the rod is springy enough to ride with the respiratory excursions of the chest and diaphragm and so keep the anesthesiologist happy.

The combination of the Positioneze retractor and the malleable flat hook has given me the clearest and closest views of the esophageal hiatus that I have ever had.

*Manufactured by the Dupaco Co., Box 180, Arcadia, California 91006.



POSITIONEZE RETRACTOR



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MUKTUK MORSELS

Fairbanks

Construction of the new 110 bed Fairbanks General Hospital is proceeding on schedule, with occupancy scheduled for late 1971.

Dr. Mohammed Zafar Qureshi of Pakistan, a Board Certified Anesthesiologist who took his postgraduate training in Chicago and Seattle, has entered the practice of anesthesiology at the Fairbanks General Hospital. Dr. Qureshi was recently discharged from the USN, Camp Pendleton.

Dr. Roger Harding, a Board Certified Clinical Pathologist from New York was recently discharged from the U.S. Army at Fort Baker, San Francisco, and has taken over the Pathology department at the Fairbanks General Hospital. Allegedly he will be employed by Dr. Michael Beirne of Anchorage.

Dr. Thomas Carter of Virginia, a Board Eligible Internist, has joined the Tanana Valley Clinic. Dr. Carter was most recently stationed here in the U.S. Army, Ft. Wainwright.

Dr. Charles W. Townsend of Kalamazoo, has joined the Fairbanks Clinic in General Practice.

Dr. Chuen-Shiong Wu of Taiwan, a Board Eligible Pediatrician who took his residency training in Vancouver, B.C., has joined the Fairbanks Clinic.

Soldotna

Dr. Elaine V. Reigle of Iowa, a Board Eligible Pediatrician who has served as a locum tenens here in the past, has entered private practice in association with Drs. Paul Isaak and Elmer Gaede.

Anchorage

Drs. David and Jean Leistikow of Iowa have settled in Anchorage. Dr. David Leistikow has opened his office in General Practice at the College Medical Center while his wife Jean, who has completed her Pediatric Internship and one year of Pediatric residency, is not currently in practice.

Dr. Leonard D. Ferrucci of Pennsylvania, Board Certified in Ob-Gyn, has entered solo practice. Dr. Ferrucci was most recently stationed here with the USAF at Elmendorf Hospital.

Dr. Robert Kao of California has opened his office in General Practice in association with Dr. Alan Homa at the Bragaw Medical Clinic.

Dr. Louis E. Mayer of Pennsylvania, will enter General Practice in October in association with Drs. Warren Jones and Charles Manwiller.

Dr. Mayer has just completed his tour in the Army here at Fort Richardson.

Dr. Kenneth Laufer of New York will separate from the USAF Elmendorf in October and enter General Practice with Dr. Alan Homa.

Dr. Nira R. Silverman of New York, has opened a private office for the practice of Dermatology. Dr. Silverman is Board Certified in Dermatology. Her husband is an ophthalmologist with the USPHS here.

Dr. Aron S. Wolf of New Jersey has entered the private practice of Psychiatry with the Langdon Psychiatric Clinic. Dr. Wolf was most recently with the USAF Elmendorf and is Board Eligible in Psychiatry.

John Burke, PhD (Clinical Psychology) of Oregon, formerly with the Office of Vocational Rehabilitation, has also joined the Langdon Psychiatric Clinic.

John Selden, M.D. of Wisconsin, a Board Eligible Internist, has joined the Alaska Clinic.

Drs. George and Carolyn Brown of North Carolina and Texas, have returned to Anchorage from Hawaii where they took postgraduate training. Still with the USPHS, Anchorage, Dr. George Brown who took his Pediatric residency in Honolulu, is now assigned to the Alaska Department of Health, Section of Child Health, while Dr. Carolyn Brown is using her further training in Preventive Medicine as Branch Chief of Epidemiology and Community Medicine, USPHS Anchorage.

Dr. Burl Stephens has closed his office in diagnostic radiology at the Providence Hospital and joined the Alaska Clinic and Anchorage Community Hospital.

Dr. Marcell Jackson has started a solo General Practice in her new office at the Lake Otis Medical Building.

Dr. Paul Dittrich had his first daughter, third child.

Dr. Carl Beck had a second daughter.

A recent meeting was held in Anchorage with Dr. Davis of the AMA Finance Committee to review ASMA activities and finances. It was apparent to those present that AMA financial advice and assistance was needed, as any further belt tightening by the society would result in auto amputation of our programs and lower members. Specifically mentioned for AMA consideration and reply were a request for an immediate \$10,000.00 loan, plus (1) a \$25,000.00 grant each year for ten years or (2) our Executive Secretary to become an employee

of the AMA assigned to Alaska; his salary and out of state travel to be paid by the AMA or (3) that the Alaska State Medical Association membership as a whole be accorded dues exempt status in the AMA so that AMA dues paid by Alaskan members can be retained in the State for State Medical Association activities. All of these requests were made with the obvious understanding that ASMA will in the future, as it has in the past, do everything in its power to develop other sources of income to support the operation of an effective State Medical Association. Further developments on this situation will be reported as they occur.

Juneau

Dr. Thomas McCabe of California, formerly in Juneau with the USPHS, has returned after completing his Pediatric training to take over the Division of Maternal and Child Welfare. Dr. McCabe succeeds Dr. Ken Moss who is now full-time in the private practice of Pediatrics.

Dr. John Stephens of Texas, a Board Eligible Anesthesiologist, has entered private practice here.

Dr. Gary Hedges had his first son, third child.

Dr. Robert Cavitt is steaming "full ahead" with plans for the 1971 Annual Convention in Juneau. He has requested that all interested parties contact him with their suggestions for speakers and topics as soon as possible so that plans may proceed in an orderly fashion for the greatest meeting yet.

Dr. Elizabeth Price, a Board Eligible Internist, has joined The Alaska Department of Health and Welfare, as chief of The Community Health Section. Dr. Price recently completed a two year tour with the U.S.P.H.S. in Nepal.

The Facilities Committee of the State Comprehensive Health Planning Advisory Council met in Juneau on September 10 and 11 to hear competitive applications for Hill-Burton hospital construction funds of approximately 1.1 million dollars. Dr. Joe Ribar, Fairbanks, is a member of the committee and the council. Providence Hospital, Anchorage, and Anchorage Community Hospital presented their master plans for expansion. Providence Hospital hopes to begin construction next summer on a new five-floor nursing tower which would increase bed capacity to 221 beds and would expand administration, operating room, laboratory, x-ray, and out-patient facilities--the project to cost 13.5 million dollars. The professional office building now being built and expected to open in April 1971 is not a part of the application but fits into the long range

master plan, which will include other nursing towers, trainee residences, a research building, self-care and visitor hotel units, more doctor office space, a parking garage, and other supporting facilities.

Anchorage Community Hospital needs to increase service department and parking support to its 79 bed hospital but federal, and presumable state funds, cannot be used for expansion because of federal designation of the "L" street area as unstable since the 1964 earthquake. Community Hospital, therefore, presented a plan for relocating the hospital, physician offices, and supporting departments to a 60 acre site near the intersection of Dowling and Lake Otis Roads, 2 miles from Providence Hospital. An 80 bed hospital complex would cost 8 million dollars and would occupy 20 acres of the site. The three-floor professional building would connect to the hospital but would be a separate project.

After presentation of both plans, the Facilities Committee, whose goal is the wise use of public monies, asked the groups to meet together to consider merging their plans to create a single large medical referral center on Providence Hospital grounds (40 acres). The two parties thereupon began discussions and will meet again on September 25 in Anchorage. It is not clear at this point whether agreement can be reached, though interest to do so has been expressed by both sides. They are to report to the Committee on October 4 in Fairbanks. A recommendation to the Council will then be made by the Committee as to assignment of the 1.1 million dollars. Final decision is in the hands of the Commissioner of Health & Welfare. Hill-Burton funds have not actually been appropriated yet by congress, but Senator Stevens informs us that appropriation is expected within a few weeks.

The concept of non-duplication of facilities is theoretically perfect. One should, however, keep in mind the not insignificant benefits of competitive laboratory and x-ray facilities as well as the necessity for qualified alternate facilities for those desiring abortions, for example.

Ketchikan

Dr. Peter S. Pinto of California has opened his private office here in association with Drs. Hilbert Henrickson and James Mortensen. Dr. Pinto is Board Certified in Pediatrics.

Seattle

Dr. Ted Philips, formerly of Sitka, will direct the new Division of Family Practice at the University of Washington. An important aspect of

his proposed program will be an expanded student body, hopefully supported by a marked increase in the number of student preceptorships in rural Washington and Alaska.

San Francisco

Dr. Ben F. Feingold of the Kaiser Foundation has requested a report on known fatalities due to insect sting (address: Geary Boulevard, San Francisco, California).

GOVERNMENT IN MEDICINE

Byproducts

Part I

A significant and growing number of well trained physicians are abandoning the practice of medicine to devote their full energies to alleviation of the current physician shortage.

OUR EFFLUENT SOCIETY

Part I

"When Big Bill Smokes, Everybody Smokes"

A recent prolonged series of shoulder-to-shoulder, knee-to-knee, nose-to-occiput confrontations with the Great American Public, traveling across the smoggy skies of the contiguous 48 states in aircraft designed for oriental midgets, proved an eye reddening and bronchospastic experience. (Certainly any airline stewardess developing pulmonary pathology should have no difficulty in proving her condition "job-related".) As I sat there hoping vainly for a "loss of cabin altitude" so that oxygen masks would be released, it became amply apparent that the dilution solution to pollution is no longer tenable. In an age where the volume of river water consumed en route to the sea can exceed by several times the entire river's flow one must finally consider ones downstream neighbor. Surely the time approaches when each airline passenger will be issued a portion of clean air ample for the trip including possible detours to Jordan or Havana, to use or abuse as he sees fit. Indeed, medically supervised rebreathing of ones own effluent of burning leaves and paper could be the answer for those presently unable to break their cigarette habit. Of course, CO₂ absorbers should be used to prevent the cure from being terminal.

In many other pollution situations a closed system of treatment and recirculation might stimulate the recipient of his own effluent into proper waste management.

HIPPOCRATES REVISITED

By A. von Hippel, M.D.

We are all too familiar with the staggering health care problems faced by urban and rural poor. The plight of the migrant worker has been extensively documented. A widespread lack of preventive health care programs has been decried, and our infant mortality rates are termed a national disgrace. It seems high time, therefore, that we also express concern with the low standards of health care often delivered to the group basic to the entire health care system, namely the doctors and nurses.

Health Care for Colleagues: The sloppy level of medical care often received from colleagues by physicians and nurses generally derives from an off-hand request for advice or medication. Such a request, accompanied by a complete self diagnosis or subjective report of symptoms, is usually made without a clearcut attribution of responsibility for medical care. The careful physician would normally never treat a new patient on such ephemeral evidence, but time demands upon both parties, as well as the desire to avoid complicating a smooth, working relationship by prying into physical and mental closets, often result in a snap diagnosis followed by off-hand treatment and advice. Under these circumstances the implicit sharing of responsibility for diagnosis and care between physician and patient often results in mutual sloughing of responsibility with neglect of care and follow-up.

Such a situation can be avoided if one insists that the care given ones colleagues, as well as friends and relatives when necessary, should be identical to that delivered to other patients. Only thorough patient evaluation based upon a complete history and physical, as well as appropriate laboratory studies and x-rays, can upgrade the care delivered to the physician or nurse to the level enjoyed by their patients.

This important rule was brought home to me by a sleek, pleasant and youthful appearing floor nurse in her forties who had occasion to request my advice on weight reduction one quiet evening on the ward during my residency. As I recall, I first suggested she eat less, but she claimed that she was unable to accomplish this. I then suggested that she try a high-protein diet as she might then feel less hungry. She thanked me for my advice and went about her duties. I did not encounter her again for about six weeks, when I was surprised to see her hobbling feebly about on a cane, appearing wrinkled, pale, aged

and infirm. She stopped my cheerful hello in midbreath, as, shaking her gnarled finger tremulously in my face, she cackled "you . . . you . . . it's your fault!"

As ward personnel congregated from their hidden nooks and crannies, she continued, "You remember that high protein diet you suggested. ."

I gulped assent.

She said, "I took that diet and it caused my gout to flare up, so I took Butazolidine and it made my gastric ulcer bleed; after my gastrectomy I got serum sickness from the blood transfusions and I have just spent five weeks in the hospital!"

Charging for medical services to colleagues: Another problem area when providing medical care for colleagues is the medical fee. An old Greek once stated that physicians must always provide care for their colleagues without charge. This theoretically perfect idea has persisted unchanged into the present era of third party payments. While it is still usual, customary, and logical not to bill one's fellow physicians or their families for medical care, this policy should not be absolute, as it may at times work hardship on patient or physician. Many physicians purposely pay the extra costs of health insurance so that they may avoid the expensive habit and major nuisance of giving "gifts" of comparable value for care received.

A physician who refuses insurance payment in such a case may unfairly charge his physician patient twice for his services. At the very least he should offer to submit the insurance papers, and then refund the insurance payment to the physician-patient, if he is unwilling to take it for himself.

On the other hand, certain highly respected physicians, practicing relatively low-income, time-consuming specialties such as pediatrics in larger communities, could end up busy and bankrupt with a practice composed largely of physician's children. Such a colleague should usually be protected from his own onerous Hippocratic principles by voluntary payment for his services when rendered, by the large majority of his colleagues who can easily afford this.

It is proposed that a federal commission be established to develop better methods for health care delivery to physicians and nurses. Support for such a commission should be requested of all candidates for public office.

WE HAVE A GREAT PROFESSION CAN WE KEEP IT?

By R. A. Smithson, D.D.S.

Current Dental literature contains many articles dealing with concepts and proposals which are designed to alter, in about the same sense a eunuch is altered, the private practice of Dentistry in the United States.

Some are frank statements of objectives, others have hidden results, but all are worthy of our study and our action. It is the responsibility of the private practitioner to defend himself and his profession against the ill-advised dogooder and the bureaucrat who is building his own kingdom and who has no concern for the taxpayer, the patient.

The Fortnightly Review of the Chicago Dental Society (15 Aug 70) reviews and quotes three men with good messages.

(1) Dr. Harold T. Lynch, Editor, Detroit Dental Bulletin deals with the delegation of duties to auxiliary personnel and voices the danger of multilevel dentistry.

(2) Dr. Sidney Francis, chairman of the California Dental Association's Technical Advisory Committee to the U. A. W. (W. Reuther's Committee of 100.) Dr. Rudolph H. Freiderich chaired this subcommittee and prepared a work book covering nine points for the Establishment of the Dental Phase of National Health Insurance to be presented for hearings before the U. S. Senate. They, as other groups, seemed to be concerned with finding a better method of providing dental care, in an effort to eliminate the present methods of "Uncoordinated and Inefficient Dental Practices." These are the same practices which have made American Dentistry the best in the world. This report is already in the hands of the Senate, but the ADA's task force in Dentistry is not due for

seventeen months. Again no consideration was given to the opinion of the practicing Dentist, his Dentist-patient relationships or that the Dentist and the patient are humans.

(3) Dr. Rexford E. Hardin writing in the May 1970 Ohio Dental Journal, discusses the makeup of the above mentioned ADA Task Force on National Health Programs. It is an impressive array of talent. Men who have served the ADA well, men who have contributed much to our fine Dental colleges, men who have worked hand-in-hand with the Federal Government, men of Labor, men in the Insurance industry.

Further examination reveals that two of the men practice Dentistry on a part time basis, eight presently are not practicing (some never did), three are non-Dentists, and one man is a full time Dental practitioner.

Every man Dr. Klenda named to this Task Force could serve well as an ADVISER, but he has failed to give the profession a committee that is truly representative of the 90,000 men who deliver Dental care daily.

This breach of trust, this lack of sincere leadership is a real blow to the unity and cohesiveness our association needs so badly at this crucial time.

Other articles portraying the benefits of Nationalized Health programs are appearing. One particularly offensive batch of distorted facts praises England's system which was inaugurated in 1948 and which has been held up as a shining bad example for all these 22 years by serious Dentists in the United States — now it is being touted as a success story. Read this stuff, men, and make your effort to keep free enterprise and good Dentistry.





AURORA DENTATUS

ANCHORAGE

Joe Harmon now associated with Joe Cumming.

Lloyd Barrow back — hopes to associate here again.

S.C.D.D.S. starting meetings after summer recess.

University of Washington Division of Continuing Dental Education course October 2 and 3. Dr. James C. Stiner "Everyday Endodontics", be there — this is another EXCELLENT course. Tom Lewis is the director of Continuing Dental Education.

Dr. Richard S. Pauli is associated with Dr. Lloyd Jones. Dick a native of California is a graduate of the University of Washington and has completed two years with the U. S. Coast Guard.

Bob Biggs is with Dr.'s Driskell, Harrower and Ricks.

Josh Wright made it through the Primary — ranked fifth on the Democrat list.

ADVENTURE DEPARTMENT

Toney Oney back from Mongolia after a successful Argaly sheep hunt, fermented mare's milk notwithstanding.

Art Geuss and wife sailed their 13 foot International FJ racing sailboat from Whittier to Valdez. This could be a first-of-a-kind trip. Art promises to tell this story in detail in a subsequent issue.

KETCHIKAN

Fred Backe stopped by — has been making his annual tour through the logging camps in his sea-going office.

Jim Van landed a 240 pound halibut the other day.

Jim Whaley and Aubrey Stevens attended the Klein and O'Connor course in Seattle.

JUNEAU

Fraley's boat carburetor problems cost him a dinner for the family at MIKE'S place.

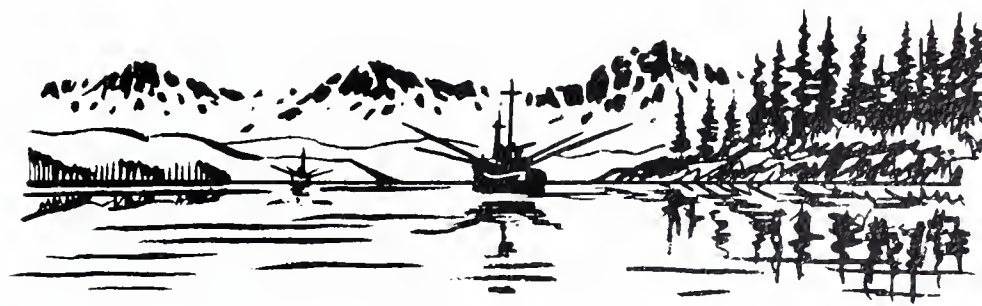
The Horschovers flew to Seattle for a course at the University of Washington after successfully competing in the primary.

Fort Richardson Hosts Area Dentists

Lt. Col. Donald H. Newell, Chief Periodontist Madigan General Hospital was guest lecturer at an afternoon and evening meeting at Fort Richardson on 30 September. Newell's presentation was excellent and had many applications for the General Practitioner.

Col. Richard Swisher, USARAL Dental Surgeon, has arranged for four more consultants to appear before the Dental Staff of this

command. The next of which will be Lt. Col. Thomas Alderson on the subject of Removable Prosthodontics, 28 October 1970. All Alaskan Dentists are invited to these very worthwhile clinics. Gen. Robert Shira, Chief, U. S. Army Dental Corps., will also visit the Alaska Command this fall. It will be good to renew an old friendship as well as to listen to one of his superb clinics.



URINARY SCREENING TESTS TO DETECT METABOLIC DISORDERS

By Irma W. Duncan, Ph.D.,

*Arctic Health Research Center
Environmental Health Service, DHEW*

Heritable metabolic disorders involve protein, lipid, carbohydrate, purine and mineral metabolism. At least ten biochemical aberrations which cause mental deficiency, neurological and other serious diseases are now treatable, often by dietary measures. Diagnosis is important even if the condition is not treatable, in order to counsel the parents and perhaps prevent the birth of other children with the same disorder.¹

Seven simple urine-screening tests are described which, in addition to commercially prepared tests using tablets and dip sticks, provide early detection (several days to one month of age) of metabolic disorders in apparently healthy infants, and in infants who are not thriving. The tests are easily performed by a physician, nurse, or laboratory technician, and require no special equipment. Directions for preparing the solutions and performing the tests are given.

Ten ml of fresh urine is sufficient to perform these tests, but if necessary, filter paper from a fresh diaper may be satisfactory. A larger sample (25 ml) is desirable if the specific gravity is also to be determined. Very dilute urines may yield false negative results, and very concentrated urines may, in some of the tests, yield false positive results. Samples should be obtained approximately two hours after a regular formula or breast feeding.

A pharmacist or chemist will assist in the preparation of solutions if necessary. Small amounts of chemicals may be accurately weighed,

dispensed dry in small vials, and solutions prepared as needed. The necessary chemicals may be obtained through local branches of chemical supply companies. Dilute solutions of the pure amino acids (.05 M in .1N HCl) may be prepared and kept in the refrigerator. Several drops of the dilute solutions of amino acids are added to five ml of a normal urine and used as a control. Urine samples may be frozen so that several days' samples may be tested at one time.

Only common laboratory ware is required, such as test tubes, pipettes, dropping bottles, filter paper and graduated cylinders. Small amounts of reagents may be measured and added in drops, or by pipette. Since the size of a drop varies, the dropper should be calibrated so that the correct amount is added. The usual dropper delivers .03 - .05 ml/drop. Disposable pipettes or droppers are used for dispensing the urine.

A positive test should be confirmed from a second fresh sample. A confirmed positive result indicates the need for a more detailed laboratory study of both the blood and urine.^{2,3,4} Used routinely, the screening tests described will find those few infants who require special investigation.

Table I lists the tests, the substances tested for, and the diseases suggested by a positive test.

DIRECTIONS

Commercially prepared tablets and dip sticks are available as Phenistix, Ketostix, Clinitest, Clinistix, Hemocombistix and Acetest.

TABLE I

Urinary Screening		
Test	Abnormality	Possible Diseases ⁵
*Clinitest	Any reducing substance	Diabetes mellitus, renal disease, galactosemia, fructosuria, amino acid abnormalities, alcaptonuria
Glucose oxidase *(Hemocombistix or similar product)	Glucose	Diabetes mellitus
*Ketostix *Acetest	Acetone, Keto-acids	Diabetes mellitus hyperglycinemia

Test	Abnormality	Possible Diseases ⁵
*Phenistix (Ferric chloride)	Keto-acids derived from the amino acids	Phenylketonuria and other amino acid abnormalities; many drugs including salicylates yield a purple color. See Buist ⁶
Protein (Hemocombistix)	Albumin, globulin	Galactosemia, Lowe's syndrome, renal disease
Dinitrophenylhydrazine	Keto acids derived from the amino acids	Phenylketonuria and other amino acid abnormalities as maple syrup urine disease, tyrosinemia, histidinemia
Cyanide-nitroprusside	Cysteine, cystine, homocystine	Cystinosis, cystinuria, homocystinuria, generalized amino aciduria, Marfan's syndrome
Ninhydrin	Any excess amino acid except proline and hydroxy proline	Amino acid abnormalities, Wilson's disease (not until about 10 years of age); Fanconi's syndrome
Nitrosonaphthol	Tyrosine and tyrosine metabolites	Tyrosinosis, tyrosyluria, tyrosinemia
Cuprizone	Histidine	Histidinemia
Cetyltrimethylammonium-bromide	Mucopolysaccharides	Hunter-Hurler syndrome
Isatin	Proline, hydroxyproline	Bone and collagen diseases

*Commercial products, not an inclusive list.

1. Cyanide - Nitroprusside test for cystine and homocystine.

Reagents

a) 5% NaCN (highly toxic) - Prepare fresh at least monthly in small amounts. (.5 g NaCN dissolved in 10 ml H₂O. Keep refrigerated.

b) 5% sodium nitroprusside (sodium nitroferrocyanide) - 5 g Na₂Fe(CN)₅ NO·2H₂O dissolved in 100 ml H₂O. Store in a brown bottle in refrigerator.

c) N NaOH-4 g NaOH dissolved in 90 ml H₂O and diluted to 100 ml when cool. (Or dilute excess 10 N NaOH from test No. 6)

Procedure

a) If the pH of the urine is below 6 (Hemocombistix or pH paper), bring it to PH7 by adding N NaOH dropwise to 1 ml of urine.

b) To one ml of approximately neutral urine, add .4 ml or the appropriate number of drops (circa 10) of the 5% NaCN. Allow to stand at room temperature for ten minutes.

c) Add one drop of the nitroprusside solution. A pink to red color within two minutes is a positive test. Most urines abnormal in cystine

or homocystine will yield a color immediately after the nitroprusside is added. A peach color is negative.

2. Nitrophenylhydrazine test for Keto acids.

Reagents

Dissolve .375 g 2,4-dinitrophenylhydrazine in a mixture of 100 ml methyl alcohol (methanol) and 25 ml of 6N HCL (12.5 ml H₂O and 12.5 ml concentrated hydrochloric acid). Stir well and filter if any material does not dissolve. Store in a brown bottle in the refrigerator. Prepare a fresh solution every two weeks.

Procedure

Pre-test - Urine which contains acetone or acetoacetic acid (positive Acetest or Ketostix) will yield a positive nitrophenylhydrazine test and may falsely suggest an amino acid abnormality. If the acetone test is negative, proceed with the dinitrophenylhydrazine test. Do not perform the hydrazine test if acetone is present but acidify a sample of the urine with N HCL to a pH of 3 and heat gently. Cool and again test for acetone.

Proceed with the nitrophenylhydrazine test on the heated urine if the acetone test is negative.

Test

a. Add 3 drops of the phenylhydrazine reagent to 1 ml of clear urine (filter or centrifuge if necessary) and allow to stand at room temperature for 30 minutes. A light yellow precipitate that appears immediately or within 30 minutes is a positive test.

3. Nitrosonaphthol test for tyrosine

Reagents

a) 2.63 N HNO_3 - Add 20 ml concentrated nitric acid to 100 ml H_2O .

b) 2.5% Sodium nitrite - 1 g NaNO_2 dissolved in 40 ml H_2O . Keep refrigerated.

c) 1% Nitroso naphthol - 50 mg 1 nitroso 2 Naphthol dissolved in 50 ml 95% ethyl alcohol (ethanol).

Procedure

a) Place 1 ml of the 2.63 N HNO_3 in a small test tube and add one drop of the 2.5% sodium nitrite and .1 ml or appropriate drops of the nitrosonaphthol reagent.

b) Mix well and quickly add .1 ml urine and again mix. A positive test is the appearance of an orange-red color within 5 minutes.

4. Ninhydrin Test - for excess amino acids

Reagents

a) .2% ninhydrin (triketohydrindene hydrate) dissolved in 100 ml 95% ethyl alcohol. Keep refrigerated in a brown bottle.

Procedure

a) If the pH of the urine is not between 6.5 - 7.5, adjust a sample carefully to approximate neutrality with N NaOH or N HCL. (Test 5b)

b) Add .1 ml of approximately neutral urine to 1 ml of the ninhydrin solution in a test tube and mix. Allow to stand at room temperature. The appearance of a purple color within two minutes is a positive test. The appearance of a color between two and five minutes may be a positive test. Most normal urines will show a blue-purple color after five minutes. A very concentrated normal urine may yield a color within 5 minutes. A very dilute urine with an excess of only one amino acid may not yield a

positive test. Knowledge of the specific gravity is helpful in the interpretation of this test.

5. Isatin test for proline

Reagents

a) 10 mg isatin dissolved in 48 ml of acetone and 2 ml of glacial acetic acid. Keep refrigerated. Prepare a fresh solution once a week.

b) N HCL - Add 10 ml concentrated hydrochloric acid to 110 ml of H_2O .

Procedure

Dip moderately thick filter paper (Whatman No. 3) in the isatin solution or place 2 drops on the end of a strip of filter paper. Wave the paper gently in the air until dry. Place one drop of urine on the reagent paper and heat very gently in an oven at 100 degrees C. for ten minutes or with an infrared lamp, or well above a hot plate or low flame. If the paper chars, the heating was too intense. A blue to purple color will appear during heating. If proline is present, this blue color is intensified when a drop of 1N HCL is added to the urine spot. Colors not due to proline disappear when acidified. A weakly positive test will have just a ring of blue around the urine spot. Dip the paper in water to dilute the acid and preserve the color.

6. Cetyltrimethylammonium bromide for acid mucopolysaccharides

Reagents

a) 1 M citrate buffer pH 5.75 - Dissolve 52.5 g citric acid monohydrate in 125 ml H_2O . Add 75 ml of 10 N NaOH (40 g sodium hydroxide dissolved in 70 ml water and after cooling, diluted with water to a volume of 100 ml). Cool the citric acid-NaOH mixture to room temperature and then adjust to a pH of 5.75 with the careful addition of 10 N NaOH (about 7.5 ml) (requires a pH meter). Dilute the buffer to a final volume of 250 ml with water. Check the pH and adjust if necessary.

b) Dissolve 6.25 of cetyltrimethylammonium bromide in about 225 ml of the citrate buffer with stirring and gentle warming. Allow to cool and dilute to a final volume of 250 ml with the buffer. This solution is stable at room temperature for at least a year.

Procedure

Add 6 drops of the cetyltrimethylammonium bromide reagent (6b) to 1 ml of clear

urine in a small test tube. A positive test is the appearance of cloudy flocculent precipitate within 30 minutes. Buist⁶ suggests an alternate test.

7. Copper - cuprizone test for histidine ⁷

Reagents

a) 0.1M tris(hydroxymethyl) aminomethane ("tris") buffer pH 7.4. Dissolve 12.1 g of tris (hydroxymethyl) aminomethane in 500 ml H₂O. To 125 ml of this .2 M tris, add 103.5 ml. of .2 N HCl and dilute the mixture to 250 ml with H₂O. This diluted mixture is .1 M tris buffer pH 7.4.

b) 1 M sodium citrate-29.41 g C₆H₅O₇Na₃. 2H₂O dissolved in 100 ml H₂O.

c) Copper - buffer solution. To 250 ml of .1 M tris pH 7.4 (reagent a) add .5 ml of a .5% CuSO₄.5H₂O solution and 1.6 ml of a 1 M sodium citrate solution.

d) Cuprizone solution - 10.0 mg of bis-cyclohexanone oxaldihydrazone* dissolved in 5 ml ethyl alcohol and 5 ml H₂O.

Procedure

Add .2 ml. of urine to 4 ml. of the copper buffer solution (reagent c). Mix. Add 0.25 ml. of the cuprizone solution (d) and mix. Allow to stand for five minutes. A positive test is a colorless or pale blue solution.

A screening test for the porphyrinurias may be included in this series.⁶ However, better information about these is obtained from feces.⁴ Buist⁶ also suggests a screening test for copper (Wilson's disease).

Most of the screening tests will be negative since serious errors in metabolism are rare. However, the argument that the trouble involved is not worth the slim chance of discovering one case is not valid. Some details of a routine physical examination are designed to detect abnormalities less common than biochemical disorders. Moreover, the cost of detecting a biochemical abnormality and instituting appropriate treatment is only a fraction of the social and economic costs involved if the abnormality is severe enough to require institutionalization or a lifetime of close supervision by relatives.

A positive screening test does not provide a definitive diagnosis. Quantitative urine and blood analyses are necessary to confirm the diagnosis.

This is of great importance for the prescription of a therapeutic diet or drug. Some Alaskan hospitals and Alaskan diagnostic laboratories may be able to provide the necessary detailed studies and interpretations. Arctic Health Research Center will provide some of these services for patients with an unusual metabolism. The National Foundation - March of Dimes has published a directory of research laboratories where the necessary studies and interpretations may be arranged⁸. West Coast laboratories where studies may be arranged are:

Department of Pediatrics
University of Oregon
Portland, Oregon

Dr. Neil Buist

Fircrest Research Laboratories Dr. C. Ronald Scott
Department of Pediatrics
University of Washington
Seattle, Washington

Children's Hospital
Hollywood
California

Dr. Kenneth Shaw

The Bio Science Laboratory in Los Angeles will do amino acid quantitation but does not furnish interpretations. Screening programs, under a physician's supervision, are part of comprehensive health care. Prompt diagnosis and appropriate therapy before the occurrence of irreversible damage, can prevent or ameliorate mental deficiency and serious illness¹.

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*also, oxalic acid bis (cyclohexylidenehydrazide)

URINARY SCREENING and the "POPULATION AT RISK"

By Jon Aase, M.D.
Anchorage

In principle an effective screening test should have several desirable features:

Simplicity and low cost.

High specificity for the disease being sought

A low rate of false negatives.

Accessibility to an appropriate population at risk.

Screening tests are most suited to those diseases which are:

Serious enough to justify the effort and expense of screening

Amenable to treatment once discovered

Sufficiently occult to delay or make difficult other means of detection.

Based on these criteria, the urinary screening tests for metabolic disease described by Dr. Irma Duncan elsewhere in this issue would be remarkably appropriate. Nevertheless, it seems unlikely that many Alaska physicians will put these principles into practice in their own offices. The cost, inconvenience and effort required to test every newborn might appear to be out of proportion to the small number of affected infants to be found in even the largest pediatric or general practice. Each of the diseases listed by Dr. Duncan is individually rare, with incidences ranging from 1 in 2000 to 1 in 250,000 live births.

Furthermore, any suspicious results in the screening test would only require confirmation by more elaborate techniques, and the inevitable occurrence of "false positives" would lead to needless expense and concern for parents and doctor alike. Thus, regardless of the theoretical benefit in screening every newborn baby for metabolic disease, practical considerations will certainly limit the application of these procedures in the busy doctor's office.

One solution to the dilemma is to reconsider the "population at risk". Newborn babies are, by and large, a healthy group. This generalization also applies to babies with metabolic disease during the first several weeks of life. With very rare exceptions, the fetus in utero is protected from the harmful effects of metabolic errors and for this reason, affected babies appear normal at birth. Clinical signs of a biochemical disorder appear insidiously during early infancy, and rarely are there changes in the first few weeks dramatic enough to alert the parents or physician. Therefore, during this period the "population at risk" must include every baby regardless of apparent good health, and screening tests will only confirm that the overwhelming majority are normal.

During the second to sixth months of life, however, certain non-specific clinical findings may be present which will prompt further investigation. Those which are particularly common are outlined in Table I.

TABLE I

CLINICAL SIGNS SUGGESTING METABOLIC DISEASE IN INFANCY

Failure to thrive
Intractable vomiting
Marked hyper- or hypotonia
Seizures
Unexplained hepatosplenomegaly

This list is, of course, not exhaustive and a better rule of thumb for the experienced clinician might be that "the baby just doesn't seem right". In such a case, the simple and rapid urine tests described by Dr. Duncan may provide just the clue needed to make a specific diagnosis while there is still time to begin effective therapy.

The family history also can be helpful in lowering the threshold of suspicion for metabolic disease. The great majority of such disorders seem to have a hereditary basis, and of these, most are inherited by an autosomal recessive mechanism. In such cases, the "carrier" parents would not be expected to show signs of the disease, but repeated miscarriages or stillbirths might provide a clue to the presence of the deleterious gene.

Certainly the occurrence of metabolic disease in a previous child would prompt a "screening test" for any subsequent children of the same parents. Likewise, testing of older brothers and sisters may reveal an unsuspected case when the symptoms of the disorder are mild.

Urinary screening tests would be indicated for infants born into families with any of the characteristics shown in Table II.

TABLE II

ASPECTS OF FAMILY HISTORY SUGGESTING INHERITED METABOLIC DISEASE

In Parents:

Consanguinity.

Reduced fertility. (including repeated miscarriages or stillbirth).

In Siblings:

Known metabolic disease.

Unexplained mental retardation.

Unexplained infant death.

Finally, from a negative point of view, metabolic disorders detectable by urinary screening are not generally associated with major single birth defects such as hydrocephalus, cleft lip/palate or spina bifida.

In summary, urinary screening tests are

extremely important for the detection of metabolic diseases in infancy, but their usefulness can be multiplied several fold if the "population at risk" is more narrowly defined, encompassing those infants with suggestive clinical features or family histories.

Books

Neurology In Pediatrics

P. F. Bray

Reviewed by S. H. Fraser, M. D.

Anytime anyone is in the Alaska Health Sciences Library, he should glance through *Neurology in Pediatrics*. This recent addition to the library should be enthusiastically received by all clinicians, and particularly by pediatricians, general practitioners, and neurologists. It is extremely practical in its approach to neurological disease in children and literally outlines the steps in making a diagnosis, plus offering many helpful suggestions on how to handle the parents of children with neurological handicaps.

The clarity of the book, of course, is due to some sacrifices. The chemical details of metabolic diseases are omitted. The overlapping syndromes of Werdnig-Hoffman, Kugelberg-Welander, and Charcot-Marie-Tooth disease are oversimplified and much too

brief. Another criticism is that much recent data on the Rubella-tainted children is absent.

However, any doctor with a child he suspects of mental and/or neurological disease will find this pragmatic volume an excellent help in guiding him toward the diagnosis.

RECEIVED FOR REVIEW

Spectroscopic Approaches to Biomolecular Conformation, Edited by D. W. Urry, 299 pp., illus., The American Medical Association, Chicago, 1970.

Abortion: Law, Choice & Morality, Daniel Callahan, 507 pp., \$14.95, The MacMillan Company, New York, 1970.

Current Procedural Terminology, Second Edition, Burgess L. Gordon, M.D. Editor, 368 pp., The American Medical Association, Chicago, 1970.

Notices

CONGENITAL AND ACQUIRED HEART DISEASE IN INFANTS AND CHILDREN, a Pediatric Cardiology Postgraduate Course presented by the American Academy of Pediatrics and the Department of Pediatrics of the University of Florida College of Medicine, December 9-12, 1970, at the Happy Dolphin Inn, St. Petersburg Beach, Florida. Inquires and requests for registration forms should be directed to Dr. Gerald Hughes, Secretary for Educational Affairs, American Academy of Pediatrics, P. O. Box 1034, Evanston, Illinois 60204.

The AMERICAN BOARD OF FAMILY PRACTICE announces that it will give its SECOND examination for certification in various

centers throughout the United States. The examination will be over a two-day period on February 17-28, 1971. Information regarding the examination and eligibility for the examination can be obtained by writing:

Nicholas J. Pisacano, M.D., Secretary-Treasurer
American Board of Family Practice, Inc.
University of Kentucky Medical Center
Annex No. 2, Room 229
Lexington, Kentucky 40506

PLEASE NOTE: Deadline for receiving completed applications in the Board office is November 1, 1970.

CLASSIFIED AD SECTION

PUBLIC HEALTH DIRECTOR: for the Greater Anchorage Area Borough located in Anchorage, Alaska. Requires at least five years experience in Public Health and an Alaska state medical license. Write to J. W. Kirk, Personnel Officer, 104 Northern Lights Boulevard, Anchorage, Alaska 99503.

GO NORTH TO THE FUTURE: Wanted—By the Alaska Area Native Health Service: Radiologist, Pathologist, and Anesthesiologist at the 275 bed general medical/surgical Anchorage Native Medical Center. Must be Board eligible or Board certified. Transportation and shipment of effects at Government expense. Federal Civil Service requirements and benefits apply. Contact Chief, Area Personnel Management Branch, Alaska Area Native Health Service, Box 7-741, Anchorage, Alaska 99501. Equal Opportunity Employer.

INTERNIST: The Tanana Valley Medical Clinic has an opening for an internist. Would like young man under 40 with military obligations fulfilled. If interested, please contact Mr. Al Seliger, Business Manager, 1007 Noble Street, Fairbanks, Alaska.

HOSPITAL ADMINISTRATOR: for 6 bed General Hospital. Send resume of administrative training and background to: Hospital Board President, Homer Hospital, Box 683, Homer, Alaska 99603.

WANTED: X-ray Lab. Technician: qualified: 33 hours a week. \$750/mo. Start June 1, 1970. Contact: R. Holmes Johnson, M.D. Box 766, Kodiak, Alaska 99615.

READY MADE PRACTICE: Completely furnished and equipped physician's office for lease with option to buy. Completely equipped laboratory and X-ray. 2815 Spenard Road, Anchorage, Alaska 99503 (907) 277-2518.

SOLO IN WRANGELL: GP or General Surgeon needed in this small southern Alaska community. New hospital (1969) office space available in hospital. Contact Mrs. Emma Ivy, Hospital Administrator, Box 80, Wrangell, Alaska 99929: 844-3356.

SOLO IN PETERSBURG: Fully equipped modern physician's office available in Petersburg for sale or lease. Modern thirty five bed hospital. New X-ray and laboratory department in hospital. Contact Mrs. Mary H. Smith, Box 164, Petersburg, Alaska 99833.

FOR SALE: Physician's office equipment i.e., examining table, instruments, cabinets, lights, complete office. Contact William Bugh, M.D., Star Route A, Box 1730 N. Spenard, Alaska, 99503: call (907) 333-6564 evenings.

GENERAL PRACTITIONER WANTED—ASSOCIATE POSITION: This opening includes plans for a possible future partnership. New office with all facilities available. Contact Royce H. Morgan, M.D., 1844 W. Northern Lights Blvd., Anchorage, Alaska 99503.

3

Polymyxin B—Bacitracin—Neomycin

against 10



Pseudomonas



Hemophilus



Klebsiella



Aerobacter



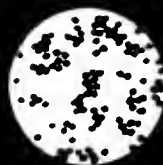
Escherichia



Proteus



Corynebacterium



Staphylococcus



Streptococcus



Pneumococcus

'Neosporin'[®] Ointment Polymyxin B—Bacitracin—Neomycin

Overlapping, broad bactericidal coverage.

Nonirritant ointment base; also enhances spreading and penetration.

Each gram contains:
'Aerosporin'[®]

brand Polymyxin B Sulfate 5,000 Units
Zinc Bacitracin 400 Units
Neomycin Sulfate 5 mg.
(equivalent to 3.5 mg. Neomycin Base)

Special White Petrolatum q.s.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components. Do not use in the external ear canal if the eardrum is perforated.

Precautions: As with other antibiotic products,

prolonged use may result in overgrowth of non-susceptible organisms, including fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Available: Tubes of 1 oz., 1/2 oz. with applicator tip, 1/8 oz. with ophthalmic tip. The ointment base and the formula of the various sizes are identical, but only the 1/8 oz. tube should be used for ophthalmic purposes.



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SEP 23 1971

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